



February, 1960

HARVARD MEDICAL *ALUMNI BULLETIN*



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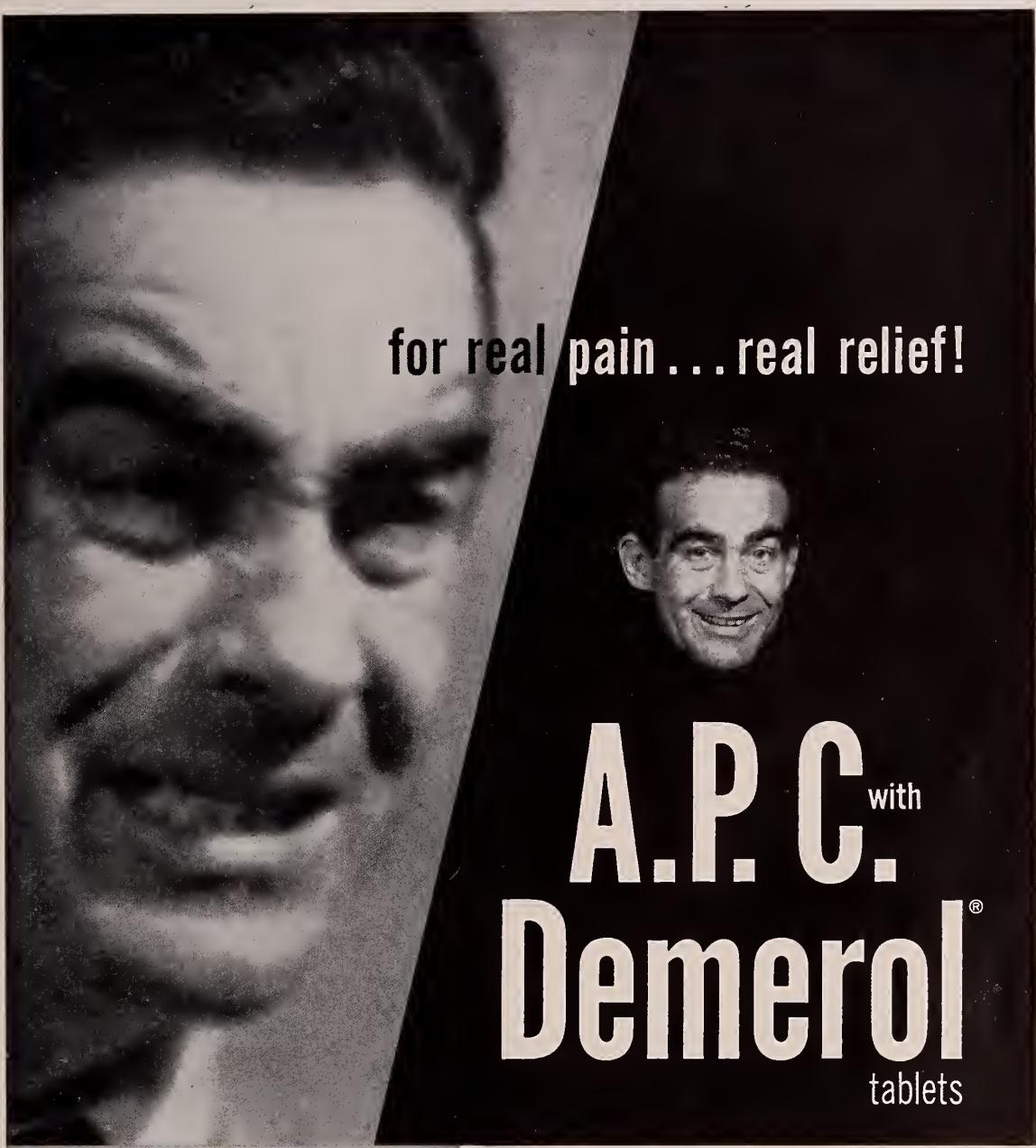
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LETTERS

To the Editor of the *Bulletin*:

My mixed interests have been attracted by the tripartite debate on legal liability which began in the May 1959 *Bulletin* with the article "Doctors and the Law" by Charles J. Dunn, Esq., and John F. Dunn, Esq. The issue was joined in the October 1959 *Bulletin* with a critical letter by Surgeon Lester R. Whitaker, '23. And in the same October number there was editorial peace-making by "J.R.B." I am both surgeon and lawyer. May I enter the ring? . . .

I would like to comment . . . upon the suggestion of Dr. Whitaker that "only doctors are competent to judge in such complicated matters," which recommendation is not, as Editorialist "J.R.B." believes, in conflict with "fundamental tenets." In the beginning, English juries were composed

of persons who had a firsthand familiarity with facts in litigation. The original jurymen were, in essence, the witnesses. The modern insulated, uninformed, impartial jury came much later; and, so far as I can learn, has never been shown by scientific demonstration to be an improvement. Two hundred years ago (a mere trifle in the evolution of our law) the great English judge, Lord Mansfield, himself empanelled juries of business experts to try commercial litigation of the day. And today adjudication in administrative law by specialized boards marks a return to this sensible practice. After all, need a jury of doctors be any more biased than a jury of patients?

AARON HARDY ULM, '39
Assistant Professor of Law
New York Law School



*The Japanese Lilac Tree.
Longwood Quadrangle — Jan., 1960*

REGIONAL ACTIVITIES

LOS ANGELES

On Friday, March 11, there will be a Dinner Meeting of the Alumni of Southern California at the California Club at 6:30 p.m. Rolf Lium '33, President of the Alumni Association, will be the guest speaker. Make your reservation with Lowell Bushnell, M.D., 1321 North Vermont Avenue, Los Angeles 27.

PACIFIC COAST

Between March 12 and 19, Dr. Lium hopes to meet with Alumni groups in San Francisco; Portland, Oregon; and Seattle. When plans are definite, notices will be mailed to the Alumni in these locations.

NEW YORK CITY

The Harvard Medical Society of New York met at a dinner meeting on October 29. In a brief talk Kendall Emerson, Jr., Assistant Dean at the Medical School, gave some interesting statistics on the total number and quality of accepted applicants to H.M.S. There followed a discussion by Mr. William Zeckendorf, President of Webb and Knapp, on the different uses of public relations by the real estate and building professions and the medical profession. The New York Alumni, President Claude E. Forkner, '26, announced, are scheduled to meet next on April 7.

DENVER

The annual Harvard Lecture of the Rocky Mountain Harvard Medical Alumni Association was held in the Sabin Auditorium at the University of Colorado Medical School on No-

vember 6. Grantley Taylor, '22, guest lecturer, spoke on "Some Aspects of Carcinoma of the Breast." Twenty-eight Alumni gathered for cocktails and dinner at the Denver Country Club, and a brief business meeting which followed. Robert Glaser, '43B, Dean of the University of Colorado Medical School, was elected President. Hugh MacMillan, '40, and George Wilcox, '46, were re-elected Treasurer and Secretary.

PITTSBURGH

The regional meeting of Harvard Medical Alumni on October 21, 1959, proved a success. The speaker of the evening, Rolf Lium, '33, President of the Alumni Association, was received with enthusiasm; his presentation on this occasion was quoted as "unusual, highly instructive and attention-compelling." The Alumni of Pittsburgh look forward with favor to a similar gathering another year.

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HARVARD MEDICAL ALUMNI BULLETIN

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NO. 2

The Cover looks toward Vanderbilt Hall from Longwood Quadrangle. David Lawlor made the photograph about nine P.M. on a February evening, just after a heavy snowfall.

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Along the Perimeter

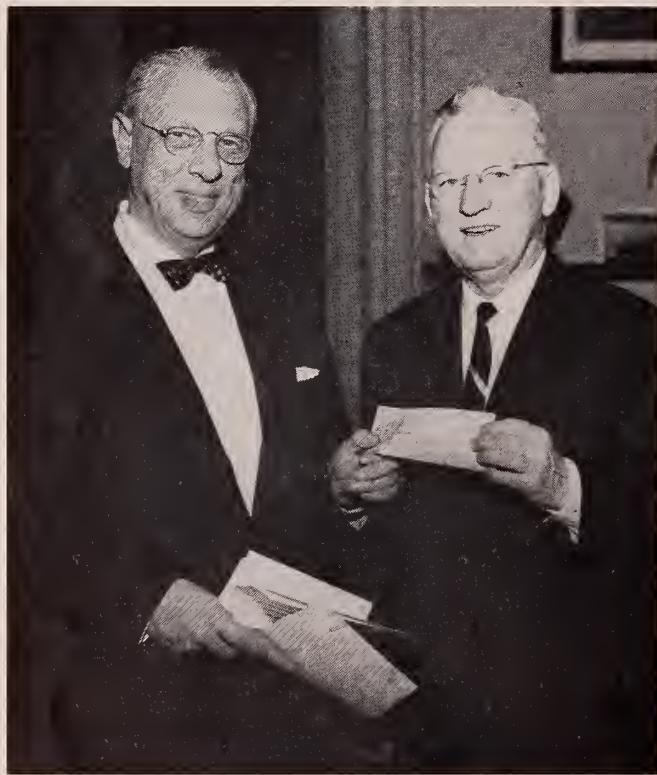
The Agreement of the Boston Medical Library to Join Forces with Harvard

The decision of the Boston Medical Library to combine collections, facilities and services with the Harvard Medical Library may come as a surprise to many Alumni who remember how slow progress is made in Boston. The author of "Diagnosis Deferred" points out on page 34 of this issue that the original Boston Medical Library had from 1819 to 1826 been merged with the Harvard Medical Library, then at Mason Street.

With plans developing rapidly for the new Francis A. Countway Library of Medicine, to be built close to the Medical School, the long-held hopes for bringing together Boston's two great medical collections are becoming a reality. The agreement ensures that members of the medical community who are, or who have been, associated with Boston University, Tufts and other non-Harvard institutions will continue to have the same privileges for the combined collections that they have had in the Boston Medical Library.

Each of the libraries will retain its identity in that each will continue to own and buy its own books and journals and provide its traditional services. Each library will move its books and staff into the new Countway Library as soon as it is built and there the collections will be intershelfed.

Plans for adequate parking facilities make the picture even brighter for the physicians and students who have struggled to find a free spot on the Fenway. The Countway Library will house the second largest medical library in the nation, the largest being the National Medical Library at Bethesda.



David Lawlor

One of his last acts in office: We mean Mayor Hynes, not the Dean. Late in the afternoon of December 31, Dr. Berry presented to Mayor Hynes a check for \$100,000 in payment for the Martin School property bordering Huntington Avenue, to provide part of the new land required for the Francis A. Countway Library of Medicine.

Visiting Professorships

Downstream from the Medical School, at Massachusetts General Hospital, Dr. Robert F. Loeb, '19, was the first James Howard Means Visiting Physician *Pro Tempore* during the week of November 2. Dr. Loeb, Dr. Means '10, and Dr. Walter Bauer conducted Ward Rounds together on Bulfinch 6, and Dr. Dana Farnsworth publicly regretted that all Medical Alumni could not have had a glimpse of the occasion by some unobtrusive type of television.

Time Magazine capsulated Dr. Loeb last July in its annual section devoted to distinguished retiring educators, "Goodbye, Messrs. Chips."

Columbia's slim, publicity-shy Robert Frederick Loeb . . . , one of the nation's top medical teachers. Son of famed Physiologist Jacques Loeb, discoverer of artificial parthenogenesis, Robert Loeb left the University of Chicago after his sophomore year in 1915 to enter Harvard Medical School, graduated *magna cum laude*. After residency at Johns Hopkins,

Loeb switched to Manhattan's Presbyterian Hospital in 1921, helped administer the first insulin treatment for diabetes, pioneered in electrolyte physiology, discovered the first effective treatment for Addison's Disease. In 1947, he became Presbyterian's medical service director, in the same year Columbia's chief medical professor. No narrow specialist (he belongs to the American Philosophical Society), Loeb is a literate physician whose adroit editing for the last twelve years has kept *Cecil's Textbook of Medicine* the bible of U.S. Medical students.

Perhaps only Smith girls like to be called "well-rounded," but it pleases us to record this confluence of two eminent and well-rounded physicians for a lectureship bearing the name of the teacher, historian and artist, James Howard Means.

Somewhat as Boston ladies *have* their hats, the Peter Bent Brigham Hospital, farther upstream at the backwash of the Fens, *has* its visiting professorships. In 1914, under Harvey Cushing, the Brigham was one of the first hospitals in the country to establish the post of Surgeon-in-Chief *pro tempore*. The most recent choice for the week-long honor was Dr. Fiorendo Simeone, '34, who is presently Professor of Surgery at Western Reserve University School of Medicine and Director of Surgery at Metropolitan General Hospital in Cleveland. Morning rounds with students and residents, and operations were part of Dr. Simeone's daily schedule. On Thursday morning he gave the third-year lecture on "The Acute Abdomen," and on Friday at Grand Rounds a public lecture on sympathectomy. The week ended with a visit to the West Roxbury Veterans' Administration Hospital where Dr. Simeone joined in ward rounds with Dr. Richard Warren, '34.

3 A.M. THOUGHTS

of an Admissions Committee Member
(after finishing the day's homework)

We get them too old; we get them too young.
We get them too bright — but seldom too dumb.
And some that look good in early November
Would scarce be considered by late in December.

The ones we reject — a pity to lose them.
And no one could ever describe how we choose them.
They all have their virtues. They all have their quirks.
Despite our best efforts, we get a few "jerks."

We take one in ten, which seems pretty low
But nine out of ten, wherever they go,
Will grace the profession — a comfort to know.

OLIVE SMITH, PH.D.
Research Associate in
Obstetrics and Gynaecology



The familiar student insignia (above) has not appeared of late under "Inside H.M.S." as the head of the regular student feature in the *Bulletin*. This is because the student heros of these articles, the skydivers and California epidemic hunters, were writing as Outsiders, not Insiders.

Here, Dr. Craige's cartoon is back, and hereafter the old "Inside H.M.S." will appear in this department regularly, bringing inside student news and views to outsiders. The regular student feature stays; it's on page 16.

Inside H.M.S.

It has to do with meals and all that. It's really quite simple.

The Vanderbilt Hall dining room runs at a loss. The solution is to get the volume up — serve more people per meal and the dining hall won't go so far into the red.

There was already an old rule that if one lived in Vanderbilt Hall he must pay for 21 meals per week during his first year and a half. The rule provided the dining hall with about 95% of its regular customers. When new students arrived each year they simply accepted this as a folkway.

It was also a sort of folkway, though less well observed, that one complain to his classmates about the food, and long for the freedom which came with the second half of the second year. The timing here seemed especially reasonable since the freedom from the dining hall was granted just when one began seeing patients and being clinical and Doctor and mature (because one had his own black bag and all the rest).

But an ugly cloud appears. This was apparently an especially grim year — the union's forcing steel prices up and all — so something had to be done. The obvious thing to do was to create "Russian Volunteers" of the second-year students: require them to stay on board during their second semester too — they had already



← Looking in on the Dean's Christmas Party in Vanderbilt Hall. Photographs are by David Lawlor.



signed leases for their rooms for the whole year so they couldn't leave.

This as anyone would suspect had a profound effect on the class. Just about one month after the announcement of the new volunteer program, the ex-vice-president got up after lecture one morning and suggested, amid loud cheers, that the class protest.

The protest took the form of a petition which was sent to some Considerable Administrative Committee. It seems so reasonable now in retrospect that you don't address such a petition *directly* to such a committee. You must go through channels.

Therefore the Considerable Committee referred it to the appropriate subchannel committee. This group met several weeks later and decided, as I understand it, to send the petition back to the Considerable Committee.

Several dissident members of the class whispered to each other over their microscopes that as the petition was moving efficiently through proper channels, time was running on and the class had already entered the second semester and it was too late. All was lost. Others, more reasonable, spoke of compromise. Perhaps "undemocratic" had been too strong a word after all. Maybe if we only had to eat 20 meals a week it would be O.K.

Some malcontent suggested that the Powers had set out to teach us yet another lesson in this situation: the terror of channels and committees and Bureaucracy. Maybe now we'd join the A.M.A. and what's more, gladly support the medical union's Political Actions Committee and do battle against Organization.

But alas, the problem here, and I understand elsewhere, is that the students were really, after all, too busy to care where they ate.

ROBERT L. DUPONT, JR., '62

Esperanto on Exhibit

The Library showcases were moved upstairs to the Warren Museum a while ago to ease the space problem on the second floor of Building A. This change has saddened the Library staff since the throngs coming in and out of the Library now miss the exhibits.

The current display honors Dr. L. L. Zamenhof, the idealistic physician who created Esperanto, the language of international brotherhood. Born in 1860, Dr. Zamenhof's childhood was spent in the town of Bialystok where Lithuanians, Poles, Russians, Germans and Jews lived together, but not in harmony. He hoped for a world brotherhood of these dissident groups, through a common language. He lived to see his movement grow world wide and was about to leave Poland for Paris to convene the largest (3000) Esperanto congress ever assembled, only to

be stopped at the Polish border because of the outbreak of World War I. Dr. Zamenhof died disheartened but he never gave up hope for the eventual acceptance of Esperanto and world brotherhood.

This exhibit of Esperanto books and periodicals shows that the movement is very much alive today. Exhibitor Dr. James Lieberman, who is a first-year resident in psychiatry at the Massachusetts Mental Health Center and an enthusiastic Esperantist, became convinced of the validity of Esperanto when he attended a Congress of 1,400 Esperantists from 40 countries and witnessed them communicate freely with each other without discrimination as to language. Hours of the exhibit are 10 to 4. It's on through February.

Triumvirate: The Oliver Wendell Holmes Library

Graduates of the last thirty-three years will remember a small room off the lobby in Vanderbilt Hall where the Oliver Wendell Holmes Library provided a refuge for recreational reading. Over the years, this has been a retreat for students who sought an hour or two of escape in the pages of a novel or a book of verse.

The recent recreation of the book collection has been the result of a happy collaboration among three powerful groups: The Student-Faculty Committee, the Wives of Aesculapius, and the Medical School Library.

The room and the book collection have both undergone a complete change in recent months. The wood-

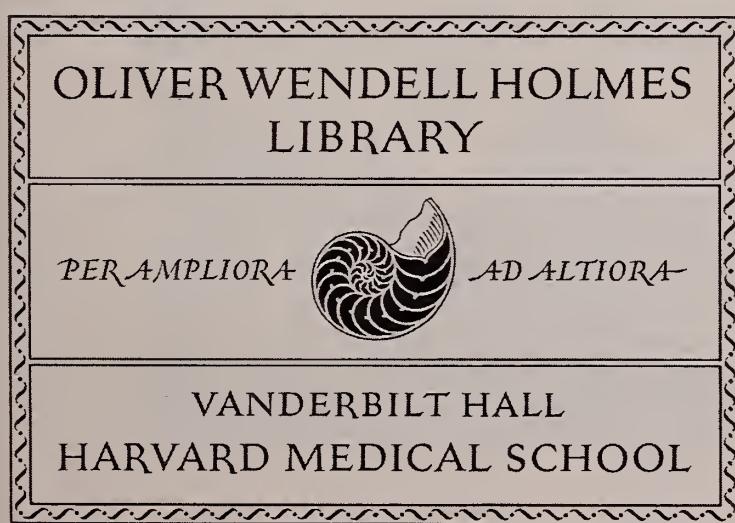
work has followed the trend to light, natural finish; the chairs were reupholstered, and last and best, 500 new books in colorful jackets with plastic covers have been placed on the shelves. These replace the several cartons of worn-out volumes which were retired.

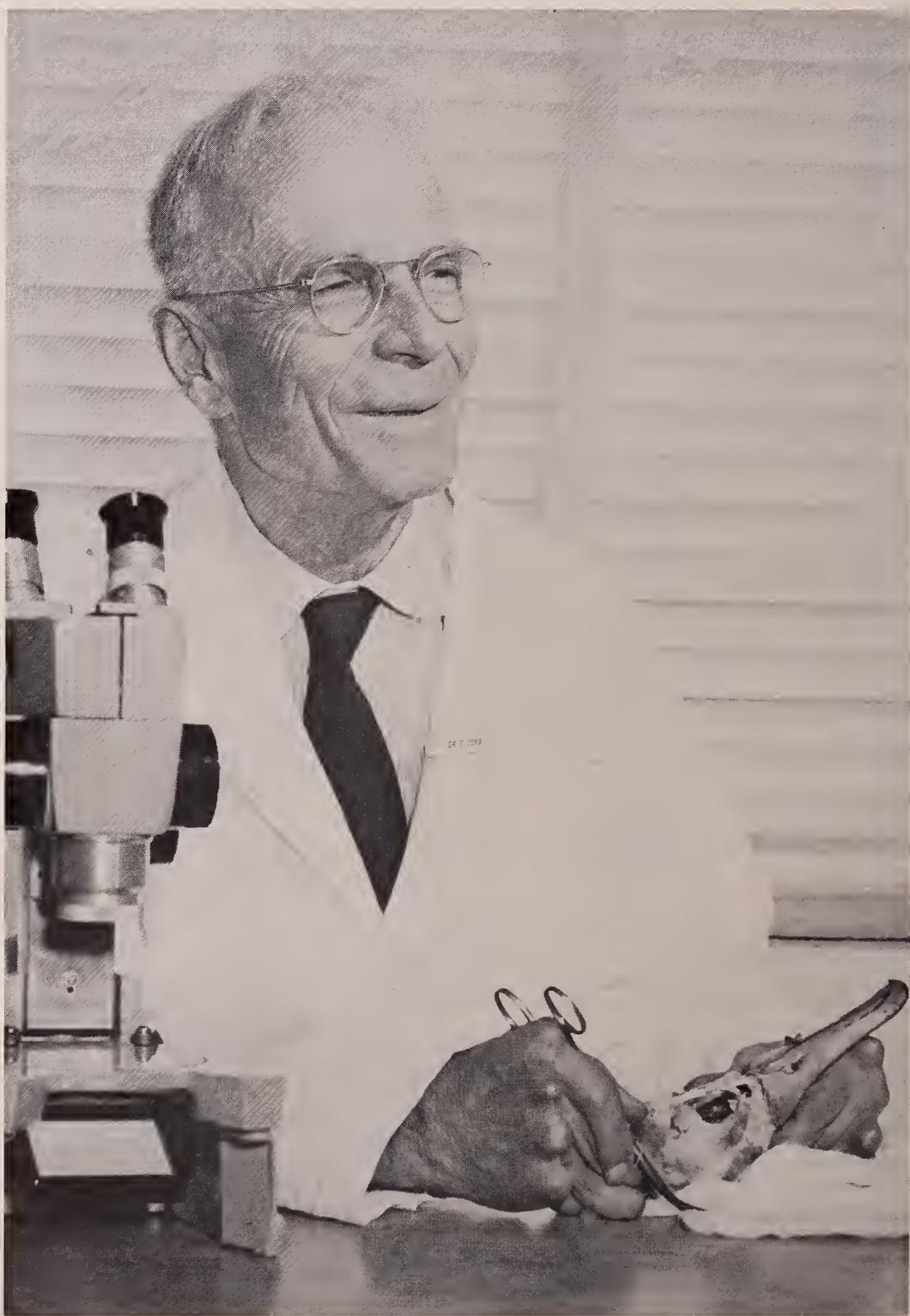
Although the Library's record collection had grown in recent years, the books had received less attention. "Nobody could find anything, the books were out of order, books were often just dumped:" this was a student verdict. The first impetus toward better days came when Rudolph Cumberbatch, '59, began campaigning for the Library; then the Wives of Aesculapius hove in sight with a generous offer of a \$700 gift for books, and even corporate hearts warmed. The Medical School Library took upon itself the details of procurement, cataloguing and arranging on the shelves. A committee of two students and the Medical School Librarian compiled a list, soliciting advice from all quarters.

Special pains were taken to create a bookplate worthy of Oliver Wendell Holmes, and the noted Boston illustrator, Rudolph Rusicka, was commissioned to design it. He has incorporated the chambered nautilus device of Holmes's own bookplate, which is pictured below. The Wives of Aesculapius paid for the new bookplate design.

An important consideration has been to insure that the collection is kept up to date. The Medical School Library has assumed responsibility for soliciting suggestions, because it does not want to be the sole arbiter of what is added. All students as well as Alumni are hereby encouraged to make suggestions about books, old and new, which ought to be placed in the Holmes Library.

The original Oliver Wendell Holmes bookplate engraving is on the right. At left is Rudolf Rusicka's adaptation of the chambered nautilus device for the new books in the Holmes Library at Vanderbilt Hall.





David Lawlor

Dr. Cobb

A PAIN IN THE NECK

Stanley Cobb, '14

Twenty-five years ago, in the days of the New Deal, an orthopedist asked me to see a rich private patient who had torticollis. He had been unable to find evidence of arthritis or other local lesion and was asking me what neurological or psychiatric condition might explain the persistent and incapacitating pain in the neck. I made a careful neurological examination, talked with the patient about an hour in all, and left for the day with a rather uninteresting history and no positive neurological findings except spasm of certain neck muscles. Not having obtained any lead as to *what* caused the pain, I went in the next day and sat down beside the bed, saying, "Well, *who* is a pain in the neck!" The reply was explosive — "Roosevelt is a pain in the neck!" Then followed an eruption of vituperation against Roosevelt and all his ways; he had "ruined" my patient's business, "confiscated" his profits, impaired his liberty, and changed his way of life so that family tensions were rising. It was a dramatic and emotional exposition of the point of view held at that time by the men Roosevelt was calling "Economic Royalists." The patient pushed away his hot pack, sat up in bed, gesticulated and spoke loudly, dropping entirely his passive invalid attitude.

Half an hour later he lay back, surprised that he had moved so much without pain. Several more interviews convinced both the patient and me that he had first had a common "stiff neck" three weeks before (source unknown) and that this minor and usually temporary ailment had been exaggerated and perpetuated by his emotional tensions. He returned home ten days later still convinced that Roosevelt was symbolically "a pain in the neck" but with enough insight to keep him from again having those symptoms.

Monism and the Holistic Physician

Such a patient is a stimulus to the physician and emphasizes the virtue of being the "all around doctor" — versatile, trained in several disciplines, tolerant and not lacking in wisdom. It takes time, patience and love of our profession to reach this state, but it brings to us, as physicians, the greatest rewards. In cumbersome words, such a doctor practices "comprehensive" medicine, or in Greek, "holistic" medicine, or in contemporary idiom, "psychosomatic" medicine. The last term unfortunately defeats its own end by suggesting a contrast between "psyche" and "soma."

Twenty-three centuries ago Plato said, "For this is the great error of our day, in the treatment of the human body, that physicians separate the spirit from the body." Today I make three assumptions, which I believe are supported by scientific data:

- (1) No biological process takes place without change of structure.
- (2) Whenever the brain functions there is organic change.
- (3) The brain is the organ of the mind.

Therefore, all function is organic and mind and body are one. This is the monistic point of view. It is not *materialism*. Materialism holds that there is nothing but energy and matter, that every phenomenon in the world is mechanically derived from these two. Monism is a unitary conception of the universe. It leaves room for such concepts as *order* and *directiveness*, which we cannot yet explain. It recognizes that our words are abstracts representing parts or features of the whole and not separate entities. The English medical philosopher, Lord Cohen,

believes that "The ultimate goal of science is a universal monism." In his lecture on "Sherrington, physiologist, philosopher and poet" he says that Sherrington's dualistic belief that body and spirit must be considered separately is "an irrational blow at the solidarity of the individual — and in this field Sherrington's thinking-cap was second-hand, indeed it had been worn by all the exponents of dualism for three centuries since the days of René Descartes." The writings of Pythagoras in the 6th century B. C. indicate that he also would have agreed with Lord Cohen.

Progoff in a paper entitled "An Evolutionary Psychology of Wholeness" points out that Jan Christian Smuts as early as 1895 was thinking about modern man as moving away from the traditional dualistic conception (spirit is pure, body is carnal) to a new science of personality. Smuts looked on man as a part of nature, as an animal species developing to a level where personality becomes the evidence of the highest point of evolution and the distinctive characteristic of man. He started with the Victorian query, "How is it possible that man derives from the animal kingdom and yet is a creative spiritual being?" In spite of years of military and political leadership in South Africa, he carried on his philosophical thinking and in 1926 published "Holism and Evolution" in which he proposed that the main characteristic of the evolutionary process is to form new wholes. He goes on to prophesy a Science of Personology that will draw out man's capacities and creatively develop personality by understanding the evolutionary unity of body and mind, allowing no dichotomies.

A LEADER in an entirely different field, Edmund W. Sinnott, after a lifetime as botanist and geneticist, came to some generalizations important for all biologists, including psychologists. He writes on the philosophy of biological processes and emphasizes that *directive self-regulation* is a uniquely biological phenomenon. Living protoplasm has an integrating, coordinating ability that seems to be the essential quality of life. The tendency to form a whole is so strong that it succeeds against the most severe experimental restrictions. A single cell isolated from a plant tip can grow to a whole plant similar to the parent. A fertilized frog's egg, if taken after it has made its first division into two cells, can be divided and each cell will go on to develop a complete frog. In contrast, two separate frogs' eggs may be fused artificially and they will grow into one frog. In the adult vertebrate the phenomenon of homeostasis is another example of self-regulation to maintain wholeness.

Protoplasm is concerned with relationships, and the development of a cell and its function is determined by its relationship to other cells. When evolutionary development reaches the enormous complexity of creating a hu-

man brain these relationships are all important, for *mind may be defined as the active relationship of the different parts of a living brain to each other.*

In my opinion, the monistic philosophy is the only logical one for a medical scientist. Unlike materialism it accepts the fact that there are some things we do not understand, for example, the order of the universe. It seems improbable that chaotic events could have led to evolution, directiveness and the drive towards making wholes.

Most of us do not think the problem through. It takes long and rigorous discipline of mind to throw off habits of thought that are centuries old and that have become imbedded in our language. When you really accept monism, you are satisfied with the belief that mind is a process, a product of the brain in action; just as circulation is a process, the result of heart and vessels in action. You then stop thinking in dichotomies, in terms of either/or, "psyche or soma," "physical or mental," "organic or functional." You see the organism as a whole, an integrated unit. If the organism considered is man, it is the *vir integer* that represents health, and disintegration is illness.

I do not regard the discussion of monism as a mere philosophical exercise of the intellect; it is important to the good practice of medicine. In my opinion, no one who believes in the separation of mind and body can give his patients the understanding necessary for effective treatment. Take, for example, a patient seen by me over the last five years — a carpenter and cabinetmaker of 75, retired, living alone and with decreasing ability to continue his beloved handicraft. He complains of "restless legs" at night with muscular spasms and jerks that interfere with sleep. There is a history of old injury to the neck, and x-ray now reveals a severe, destructive arthritis of the cervical vertebrae. Physical examination shows only exaggerated and very variable reflexes of legs and arms. He is helped by a combined treatment of orthopedic neck traction, careful use of drugs and social service. But he keeps coming back to me in frantic doubt, asking, "Doctor, is this physical or am I neurotic?" My painstaking explanation always improves the situation for a while. Eventually, however, he returns to his habit of shopping around for new opinions. These usually take one side or the other and lack the comprehensive grasp of his illness. So they confirm his neurotic fear and he comes back to me with the same old question. There are thousands of such patients, and none of them can be properly treated until we, their physicians, can really accept the monistic point of view.

In European culture the holistic emphasis goes back not only to Smuts, Freud and Jung but to Kierkegaard and Nietzsche. Kierkegaard and Nietzsche believed that European man had begun to disintegrate in the 19th century because he had allowed his life to become fragmented. He shut off the various parts one from another by a process of pigeonholing; his religious self did not recognize what his business self was doing; his competitive

self did not realize the community feelings he was discarding; his esthetic self was estranged by his dogmas; feeling, affection and love were minimized in the competitive world. Great repression was needed to avoid seeing one's self; lack of living a harmonious and understanding life led to frustration, anxiety and aggressive attitudes of defense.

THE present great educational need is the opportunity for everyone to participate in the fundamentals of life, food getting, family and community life, birth, love and death.

We do not participate in getting food: it is "processed" and "packaged" for us. We do not participate enough in family life: too many of us "punch a clock" while our wives act as chauffeurs delivering the children to be instructed by specialists in this and that. Community life and solidarity are sadly lacking in America. Modern civilization may have created more security with opportunity for love and family life, but too many marriages are wrecked on the reefs of our fragmented lives. The opportunities to participate in life are being taken away from us by specialists.

Let us return to our first patient. He undoubtedly had some pain, for muscle spasm is one of the commonest causes of aches and pains, but with him it was perpetuated and exaggerated by emotion. I do not believe in "imaginary pain." Most patients have had some pain in the beginning on which to build up their incapacitating suffering. If one stops and puts one's attention on the subject of pain, it becomes obvious that we all have many little aches and pains every day, which go unexplained because they are insignificant. We have other things to attend to that are more interesting. But if we get into a state of tension and anxiety over some personal problem, it is all too easy to be a bit of a malingerer, to make use of a little pain and then to step across the line and use an unconscious hysterical mechanism.

I remember many years ago, to my amusement and chagrin, that one morning when I drove to the Massachusetts General Hospital I found no room in the regular parking space but did see a place in the circle close by the front door. A few months before (because I was convalescent from an earlier operation on my knee) I had been given the privilege of parking in this circle. So I drove in, left my car and started walking to the front door. The attendant policeman was there and as I passed him and said good morning, I realized that I was limping unnecessarily with my cured leg! As chief of the Psychiatric Service of that hospital, I was chagrined; as a collector of episodes of borderline hysteria, I was delighted. The line between malingerer and hysteria cannot be sharply drawn; in hysterical patients their degree of insight into the psychic mechanism varies all the way from a complete amnesia to a vague knowledge that they are

"Since retirement in 1954," says Dr. Cobb, "I've been busying myself with the anatomy and physiology of the avian brain. This comparative neurology is of interest to me because of my lifelong curiosity for ornithology and because it has an important bearing on the psychology of instinct." The albatross sharing the limelight with Dr. Cobb in the portrait on page 8 was sent from Midway Island in the Pacific, not preserved in formalin as he had expected, but very much alive and squawking. Since it died a natural death Dr. Cobb reports that no curse was cast upon his work.

Dr. Cobb, who is well known to the Alumni as the Bullard Professor of Neuropathology, emeritus, and the former head of the Department of Psychiatry at Massachusetts General Hospital, is now working in the new laboratories in the Warren Building at the M.G.H., doing anatomical work in Dr. Adam's neurological laboratory and psychiatric work in an office in Dr. Quarton's psychiatric research laboratory. He also sees patients in consultation at McLean Hospital, and in the Phillips House at the M.G.H.

"A Pain in the Neck" is based on the Annual A.O.A. Lecture, delivered at the Medical School last May.

"putting something over." Conscious malingerers are also neurotic, if we define a neurotic symptom as one due to maladaptation in interpersonal relations.

In my opinion, it is not a case of "real" pain or "imaginary" pain but a matter of how much pain and how the patient reacts to it. To evaluate this will take all your skill as a physician and all your wisdom as a man. This, to my mind, is the essence of medicine. Pain is the *raison d'être* of the medical profession. The great variation from one patient to another in their reaction to pain is common knowledge. Some patients suffer greatly from small stimulations, such as drilling a tooth, while other patients undergo this with equanimity. Literature and history are full of examples of stolid people who could "stand" great pain and sensitive persons who could "stand" none at all. Much useless praising, moralizing and injustice have been done. Perhaps, at last, we are approaching a method that will give us a measure of pain which we can compare with the patient's reaction, the reaction indicating the amount of his suffering.

The reasons why one person suffers more or less than another are both physiological and psychological. Some persons are born with imperfect mechanisms for the reception of pain and go through life without experiencing the sensation. Between these anomalous individuals and high-strung, sensitive persons there are probably many degrees of physiological sensitivity. When the situation determining the reaction to pain becomes more complex, we call it psychological and recognize many factors.

First, we are not alone in the world. This obvious fact has great bearing on our attempt to evaluate pain as opposed to suffering. If we could record the sensations

of one man alone in the world, we might eliminate psychological factors, but we cannot. The impact of one person on another is of the greatest importance because interpersonal relations set up all sorts of reactions, especially in the autonomic and endocrine systems. They may be for better or worse, according to whether we call them adaptations or maladaptations. When we begin to study these reactions, we apply sociology to medicine.

It is a common clinical observation that some patients with chronic painful diseases make their pain a way of life. They adjust to pain by making use of it, and they are resistant to any kind of therapy. On the other hand, some patients (like our friend with the pain in the neck) even if totally incapacitated by their suffering may be treated by psychotherapy and brought back to a normal life. Their total suffering may be so much reduced that they can learn to live with the pain and take it as incidental.

How much can these therapeutic results be explained by attention and distraction? The situations are so complex that one must avoid oversimplification, but attention is a most important mental mechanism. Thorpe in his book on *Learning* writes, "A major step in the organization of animal behavior has been the development of methods whereby the individual or the species selectively ignores certain stimuli — and comes to attend to the relatively few that concern it." Wolff applies the idea to pain by saying that pain is an event and competes with other events for one's attention. By using some screening mechanism we choose which messages will be attended to and which will be ignored. Were it not for this, one would be in a perpetual state of manic distraction. Adrian suggested that the reticular formation of the brain stem was a possible site for the first important screen. Wherever it has its locus, it is essential in helping one to turn his attention away from pain to something constructive.

The study of pain gives us a conspicuous example of an area where neurology and psychiatry meet. But the relation of neurology to psychiatry is changing, and some influences are drawing them apart. When I began to study the brain in 1910, it was possible to cover both fields and become a "neuropsychiatrist." Today the bulk of literature in each field makes it impossible to be the compleat neuropsychiatrist. The question arises — how much neurology should a psychiatrist know, and how much psychiatry should a neurologist know?

Neurological observations can be carried out on one isolated human subject, as mentioned above; the form and function of the nervous system can be explored. At lower levels in cord and brain stem the reactions would be considered reflex and assigned to the neurologist without argument. Higher levels of integration in thalamus and cerebral cortex would bring in such functions as consciousness, memory and speech; there the psychiatrist might express his interest and assert his rights just as effectively as the neurologist. When the behavior of the total organism is studied, the psychiatrist would have even more right to claim the field. But a neurologist might be

interested to find out what a man would do when exposed, for example, to the flickering light of a stroboscope or to a sudden loud sound. The study of total organismic reactions is not the prerogative of any one specialist.

In our civilization a majority of human psychological reactions (reactions of the man as a unit) are called forth by stimuli arising from another man. This situation brings in a new factor, the reaction of one brain to another. Here is clearly the beginning of personal interrelations and social psychology. Many neurologists might not wish to cross this theoretical line, but as physicians carrying out treatment, few would hesitate to ask some personal questions or to manipulate the patient's social environment — that is, to practice a simple kind of psychiatry.

The autonomic and endocrine systems are usually considered to be the field of the internist, not of the neurologist. When interpersonal reactions come into play, however, a great many autonomic responses occur immediately and are followed by the later and longer lasting endocrine responses. The study of such phenomena brings the neurologist and psychiatrist back into internal medicine. This is the field recently called "Psychosomatic Medicine."

IN summary, one might say that the simpler reactions of a nervous system are the undisputed field of the neurologist; when the reactions are more complex and less experimentally controllable, the psychiatrist takes over with his techniques for observing and analyzing human behavior. The neurologist, however, has an important contribution to make to the study of the neuronal assemblies where integration is most complex. Here there is a large overlap of interests. As far as treatment is concerned, the psychiatrist treats behavior disorders whether they arise from lesions of the nervous system, endocrine dysfunction, toxins, disturbed interpersonal relations or any combination of these. He takes over when the internist, surgeon or neurologist considers that the special techniques of the psychiatrist for handling behavior problems are needed. But no hard and fast lines can be drawn because all kinds of doctors skillfully handle many problems of behavior. In other words, they practice psychiatry to a greater or lesser extent, depending upon their interest, experience and facilities. No field can be said to belong to any one department of medicine because the lines between the fields are too indistinct; physicians vary in interest and training; conditions of practice and hospital facilities vary greatly from place to place. Progress is achieved by ignoring the boundaries of academic disciplines.

To my mind, "Personology," the study of individual personality and of interpersonal relations, is the most urgent task in the world. Our understanding of human behavior is far behind our knowledge of physics, chemistry, mathematics and astronomy. We must catch up and gain some wisdom in the field of social science if we are to survive.

HONORS

C. SIDNEY BURWELL, '19, Samuel A. Levine Professor of Medicine, has been appointed the first Hugh Jackson Morgan Visiting Professor of Medicine at Vanderbilt University. Of Dr. Burwell, who was on the Faculty of Vanderbilt University for 10 years, Dr. David E. Rogers, Head of the Department of Medicine there said, "Dr. Burwell is uniquely qualified for the honor of being the first Hugh Jackson Morgan Visiting Professor because of his international reputation as an outstanding physician and his lifelong friendship and association with Dr. Morgan and Vanderbilt University." The new professorship provides for a week of instruction each year by one of the nation's leading physicians. It is established by former students, fellow faculty members and friends of Dr. Morgan who, prior to his retirement in 1958, was for 28 years head of the department of medicine at Vanderbilt. This distinguished Nashville physician was himself awarded the Alfred Stengel Memorial Award last April, the highest honor accorded by the American College of Physicians.

* * *

At the annual meeting of the American Public Health Association, ALBERT H. COONS, '37, Visiting Professor of Bacteriology and Immunology, was one of seven scientists and laymen who received the Albert Lasker award. The award, one of American medicine's highest honors, cited Dr. Coons, "for his outstanding contributions in immunology and medicine and especially of the fluorescent method of labeling proteins, a significant new tool for the study of infection in human beings."

ROBERT E. GROSS, '31, Surgeon and Chief at Children's Hospital and Professor of Children's Surgery at Harvard Medical School, has received a second Albert Lasker Award. Five years ago Dr. Gross, a pioneer in open heart surgery, received the Award with Dr. Alfred Blalock and Dr. Helen B. Taussig. "In the intervening years," the Award's citation noted, "he has continued to play a foremost role in the extension of surgery to the relief or cure of other cardiovascular defects."

* * *

DAVID D. RUTSTEIN, '34, was presented the Croix de Chevalier de la Légion d'Honneur from M. Charles de Pampelonne, Consul General of France in Boston, for his services in promoting cultural relations between France and the United States. Dr. Rutstein also has been elected a Foreign Correspondent in the Division of Hygiene and Epidemiology of the French National Academy of Medicine.

* * *

On October 25 two 1959 Gold Heart Awards for outstanding contributions to cardiovascular medicine were conferred by the American Heart Association on Harvard Medical Alumni. SAMUEL A. LEVINE, '14, Clinical Professor of Medicine, and DAVID D. RUTSTEIN, '34, Professor of Preventive Medicine, were two of the three men to receive this Award, the highest honor of the Heart Association.



Falstaff: "Enough material for a C.P.C."

R. R. SIMPSON: *Shakespeare and Medicine*, E. S. Livingstone, Ltd., Edinburgh and London, 1959, 267 pp.

Mr. Simpson must have had a pleasant time of it gathering the medical, or juxtamедical, references in Shakespeare. He notes in the preface that there are 712 such references, and in the last chapter he lists them, by act, scene, and verse. The intervening chapters quote a very high percentage of this material. The book, however, is not merely an anthology — indeed many of the chapters are cast as essays by Shakespeare on drugs and poisons, wounds, public health and epidemics, pregnancy, children, old age, eye, ear, nose and throat and venereal disease. Other chapters consider the illnesses and modes of death in some of the major *dramatis personae*. Sir John Falstaff presents almost enough material for a CPC, and has a chapter to himself. Some of the most interesting material in the book comes from a source outside the plays: an attempt to reconstruct from the remaining fragmentary evidence the person of John Hall, who was a physician and Shakespeare's son-in-law. The author follows a suggestion made by others that much of the medical knowledge displayed in the plays, as well as the relatively respectful attitude of Shakespeare toward physicians (in contrast to that of contemporary playwrights), derives from this connection.

It must be granted that the soil has been tilled before, and that much that is turned up is only trivial. The book is a good bedside volume, however, and possibly a useful reference for those who wish to adorn their pronouncements with allusions. The plays themselves are better reading, and in this connection the flyleaf quotation is most apt: "And he that tries to recommend him (Shakespeare) by select quotation, will succeed like the pedant in *Hierocles*, who, when he offered his house to sale, carried a brick in his pocket as a specimen." (Samuel Johnson, in *Preface to Shakespeare*, 1765.)

GEORGE S. RICHARDSON, '46

Editorial

QUANTITY *and* QUALITY: THE NEED FOR MORE PHYSICIANS

The Bane Committee has called for a billion-dollar construction program for medical schools and Federal scholarships for medical students in order to provide this country with what has been estimated to be its needs for 1975.

The simple statistics of the matter seem at once clearcut and disturbing. Last year the United States had 235,000 doctors of medicine, a ratio to population of 133:100,000. In the same year approximately 7,400 doctors were graduated. There has been a significant increase in doctor production each year as a result of new schools and expansion of existing schools. At the present rate of increase we might well expect to have 9,000 yearly graduates by 1975. Based on the Bane Report figures, however, we would, by 1975, need 11,000 new doctors per year to maintain the same doctor-population ratio. Thus, we would need 3,600 more graduates yearly than were produced in 1959.

The Bane Report aroused much public attention, but it was not long before its critics pointed out that the answer was not solely to be found in raising money and building new schools. In the first place, the cost is stupendous: \$50,000,000 is a conservative estimate for a new medical school and twice this figure might well be needed to include and support the clinical facilities, patients and teachers for a new adjoining hospital. In the second place, it was clear that other deeper problems of personnel would require probing as well, before an answer could be forthcoming.

There is a clearcut trend for the young college graduate to turn his head away from "the noblest of professions" and the situation bodes poorly for the caliber of our medical school graduate in 1975. His action stems from a number of potentially correctable economic and sociologic inconsistencies. There is an unmistakable trend for competing opportunities to catch the college graduate's eye. Over the past several decades, the number of persons entering professions requiring the Ph.D. degree, particularly biology and the physical sciences, has been increasing more rapidly than the number entering the medical profession. A bright young man's fancy turns easily to nuclear physics, electronics, mathematics and other of the exciting atomic age specialties. He is egged on both verbally and financially by a keenly interested and worried Federal Government, eager to compete on equal terms with other countries in the space age. The support in scholarships in these

fields far outdistances anything in the field of medicine. For those bright minds of today there is, therefore, as much or more fascination in the electron as there is in the long, and at times tedious, education to be a doctor.

As a result, if one may gauge by the generally declining numbers of medical school applicants and the rising percentage of student "drop-outs" indicated in the Bane Report, the over-all quality of medical students is already sagging. The negative policy of some state legislators with regard to out-of-state applicants does nothing to improve the quality of their applicants and leaves some better qualified students unable to attend school at all.

The solution for our impending problem includes a number of parts:

First, a very real effort must be made to return the medical profession in the eyes of our college students to its position of eminence. This may well mean fundamental changes in the length of education; eradication of less necessary steps in the academic program and, more than anything else, reasonable financial support through the training years. This should include not only the four years of medical school but also the period of internship and residency.

Second, our medical school admission committees must constantly be alert to students who are potential "drop-outers." This attrition today results in some 700-800 students leaving schools in the first and second years. Their places might well be filled by better qualified students from other parts of the country. This loss is the equivalent of the teaching space of eight *new* medical schools.

Finally, more advanced methods in medicine and surgery and the resultant progress in handling disease make an estimate of our medical needs in 1975 difficult to evaluate in 1960. There is no clearcut proof that the ratio of doctor to patient must arbitrarily remain at 133:100,000. Ease of patient transportation; more out-patient clinic care; increasing numbers of suburban hospitals; interhospital reorganization in enlarging cities; changing disease trends — these and other developments may actually decrease the ratio required to maintain excellence of medical care.

J.R.B.

THE DANISH

to the Rising Cost of Medical Care

One of the large problems facing modern society is the rising cost of medical care. Fifteen per cent of all families in the United States now go into debt each year due to some medical catastrophe. If prices are lowered, the hospitals cannot afford the same quality of service, but if the patients bear the full cost of hospitalization the economic burden will possibly cut down the effectiveness of the treatment. This dilemma is not uniquely American, and most countries in the world are searching for a solution. This is the answer which Denmark has worked out in response to this problem.

Some twenty-five years ago, the Danes realized that the cost of medical care was becoming prohibitive to people in the lower-income brackets. Accordingly, the "Syekasse" was born, and the government decided to make the quarter of the population with the lowest income eligible for membership. At this time, it was strictly a private organization and run on the basis of shared risk. As costs continued to rise, however, it became evident that more and more people needed such aid, and also that additional funds from some source were going to be necessary. Accordingly, the national government entered the scene and lent its support through tax money. At present, the lower 70-80% of the population is eligible, and the operation is still run privately. The funds, however, are collected through a special government tax of about 10 kroner (\$3-\$5) on every Danish citizen. This means that the non-eligible, high-income 20% of the population helps pay for the medical care of the rest. The system is based on the theory that a tax of this size is not prohibitive to this high-income group.

James Vernon is now in his third year at H.M.S. During last summer, he worked at the Fredericksberg Hospital in Copenhagen for the Chief of the Central Clinical Laboratories at the Hospital. He attended clinical rounds each morning and in the afternoons did research on a new method for fibrinogen analysis. He says of his stay, "I had to get most of my statistics for this article by talking to informed people. There is not much in the current literature because the system is not new, and people in Denmark are tired of writing about it."

For the portion of the population not covered by Syekasse membership, similar private organizations have been set up, supported entirely by the membership. The fees are higher, of course, but the coverage is the same. It must be emphasized that there are no restrictions as to age or physical health. Thus, the old and chronically ill are receiving the care they need at a cost within their means. This, I feel, is probably the main point in favor of any such system.

This, however, is not the whole story, for if the Syekasse were forced to pay hospital fees comparable to those in this country (and they *are* roughly comparable), it could not operate on such low "premiums." When a patient enters his area's hospital,* he must pay only 12 kroner (\$4-\$6) per day, himself. The Syekasse pays one-half of the remaining cost and the township the other half.

Danish Medicine as a Profession

When the young Danish physician graduates from medical school, he has three choices open to him. He may enter either 1) hospital academic medicine 2) Syekasse medicine, or 3) private insurance company practice. (A very few choose to enter a strictly private practice, but quite a few have some private patients even though they locate in one of the above categories.)

Doctors choosing Syekasse practice register their names with that organization, and patients in turn who desire the services of that doctor submit a slip to the Syekasse stating this. A patient may change his allegiance every six months if he so desires. The doctor is paid by the Syekasse on the basis of the number of patients registered with him. The fee is a set one, per person, per six months, and is the same regardless of the number of calls or the amount of service rendered. In order that doctors may not become overworked and patients undertreated, the maximum number of patients one doctor may register is 1,000. Thus, a doctor will never be paid for more than

*The hospitals in Denmark, however, have for many years been owned and operated by the cities, counties and townships.

ANSWER

James Vernon, '61

1,000 patients, and if more people request his services, they will be assigned to the physician of their second choice.

I am speaking now of office visits, examinations, and house calls between the hours of eight and five. In addition, however, the Syekasse pays for any medicine "necessary to the maintenance of life" in chronic disease, as, for example, insulin for diabetics. This cognizance of the drain which small expenditures over a long period can place on a person is another very commendable point in the system.

The services which the Syekasse does not cover must be paid for by the patient on the spot. (Danish doctors don't send any bills.) These services include all medicines given in the course of an examination, such as injections of antibiotics; any special examination involving paper work, such as driver's license examinations; and any night calls from five P.M. to six A.M. (It is an interesting aside that the Syekasse doctors in Copenhagen have arranged to share the burden of night calls. They have divided the city into numerous districts and have arranged with the telephone system so that no matter which doctor is called within a district the message will be transferred to the doctor on duty for that evening.)

Hospitals

Within the boundaries of greater Copenhagen there are at least five Kommunes, roughly analogous to the boroughs of New York City. Each Kommune has its own government and its own hospital. Each hospital ranges in capacity from 1,000 to 1,500 beds. Thus, in a city of about one and a half million inhabitants, there are well over 5,000 beds available, a high ratio of hospital beds to population.

The Fredericksberg Hospital is a large, sprawling affair divided into eleven departments, each a semi-autonomous unit with its own physical setup. Each department has one chief, two "first assistants" and one "second assistant," all of whom would be M.D.'s but who would in addition have written a fairly exhaustive thesis in some field of



The open air Museum "Old Town" in Aarhus

clinical research. A medical graduate is not eligible for a second-assistant position until his thesis has been accepted by a national board. Once he does obtain this position, the second assistant may remain for three years, during which time he must do one of three things: either move to first assistant, change departments within the same hospital, or move to another hospital in the same capacity. Once in the position of first assistant, a doctor may remain five years and then faces the same alternatives again. This forced turnover causes a process of selection which, when it operates well, allows only the best men to reach the highest positions.

Each department will have, in addition, a varying number of "candidates." These are young graduates who are either fulfilling the equivalent of an internship requirement, or are in the process of writing their thesis. They generally remain one year in a given hospital. All hos-



The town hall square in Copenhagen

pital physicians are on salary from the Kommune. As I said before, they are not in the employ of the Syekasse, but it is quite possible that most members of the hospital staff except the chiefs will be in income brackets which are *eligible* for Syekasse membership!

If a candidate wishes to leave a service for a month, he can arrange to have a sixth-year medical student replace him (Danes enter medical school at 18 and have a six-year medical course).

The functioning routine of the hospital is similar to our own, in most respects. Each night one candidate will be on duty. He must care for any emergencies and take the admitting history and physical of all new patients. I was interested to find that the responsibility for this period of time rests solely on the candidate and that there is no recourse to higher authority. Each morning, one of three assistants will see each patient and will repeat the history and physical on the new ones. The chief visits about one third of the patients each day, and only the chief may write the final diagnosis in the record. No matter how much medicine the patient may require, however, how many lab tests must be run, or how many transfusions received, the patient pays exactly the same each day. The equivalent of \$4-\$5 per day is an all-inclusive fee.

As a sidelight, it is interesting that even under such a system there are some people who insist on paying entirely for themselves. A ward is set aside for these "private" patients, but they are cared for by the staff and their treatment is identical with that given the other patients.

From all of this may well arise the question: What is the relation of the doctors practicing in the city outside to those in the hospital? The answer is, surprisingly enough: absolutely none. A doctor practicing in a given Kommune may refer a patient to the Kommune hospital. Once he has done so, however, he will never see the patient again until the patient is discharged from the hospital bearing his hospital diagnosis slip listing the treatments given and perhaps recommendations for further treatment by the practitioner. Thus, there is a complete separation of hospital or academic medicine and general office practice. This, to me, represents one of the greatest failings of the system, for the roots are thus cut off from the leaves and the infusion of new ideas is eliminated in both directions.

In conclusion, Danish medicine is not so much a socialized system as a cooperative one. In fact, this is what they prefer to call it. I have in certain places indicated features which I consider praiseworthy and others which I think are unfortunate. As a third-year medical student, however, I would not feel qualified to make a value judgment on the system as a whole. Before ending, I want to point out that, as the arrangement stands, it is unwieldy. The administrative problems are large and complicated and while the system is feasible in a country the size of Denmark, it would hardly be suitable for the United States without considerable streamlining. The effects which the streamlining might have on the cooperative-versus-socialistic nature of the system are an unknown quantity.

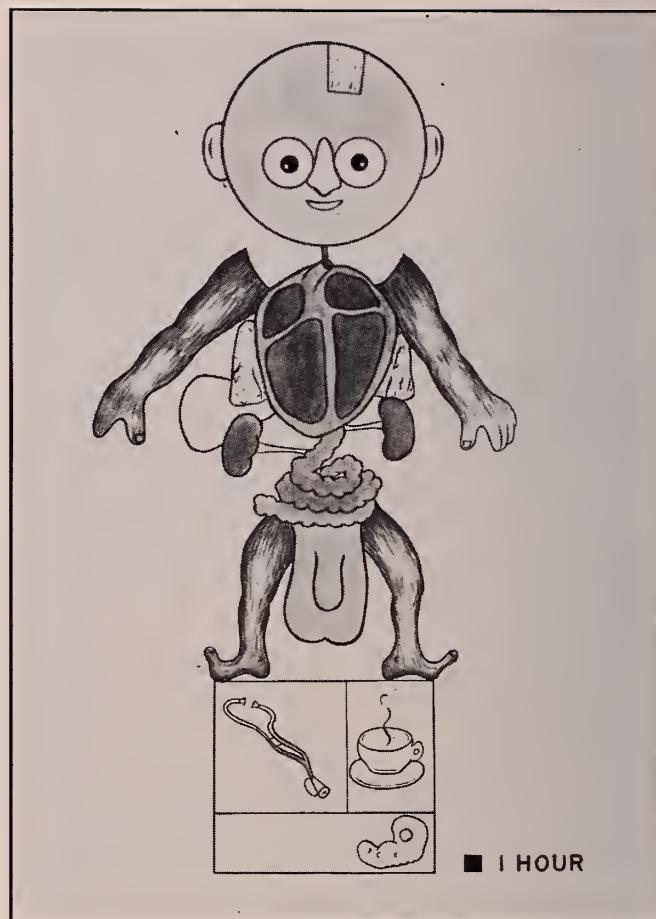
The newest of the large municipal hospitals: Copenhagen County Hospital in Glostrup



Photographs, courtesy of the Danish National Travel Office

*Our thanks to Mr. Morton Lipsky
for his assistance with the drawings.*

*Guido Majno, M.D.
ASSISTANT PROFESSOR OF PATHOLOGY
and
George Bernier, Jr., '60*



1. *ANATOMICUS*

HOMUNCULI:

The Anatomy of the Curriculum

Introduction

This year, Washington's birthday falls on the testis. Unless we give up some pancreas, we'll have to cross out the eyes . . . (Excerpt from the minutes of a Subcommittee on the Curriculum.)

On one hot summer day, while organs were being thus merchandised, it occurred to us that the Curriculum might look quite peculiar if each department were represented as a little man, with the various organs drawn in proportion to the time allotted.

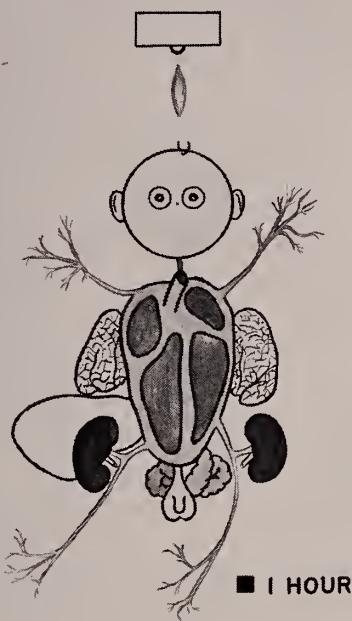
Thus were born the Homunculi.

Of course, we did not set out to demonstrate the harmonious makeup of our curriculum (this kind of evidence is available in the Catalog) but rather to point out, in crude fashion, the peculiar interests of each Department.

We do have some homuncular precedents. Although "Homunculus" means simply "little man," the term has acquired through the ages a connotation of

"gremlin" or of a creature conjured by witches. The most famous was the diabolic Homunculus of Goethe's *Faust*. But even before that, in the seventeenth century, microscopic Homunculi were observed in the human ovaries. Each of these Homunculi was supposed to have ovaries which contained second-order Homunculi, which in turn contained smaller Homunculi and so on, with the end point a subject of much debate. Someone even calculated out the 200 million Homunculi which must have been preformed in Mother Eve's ovary.¹ More recently, Dr. Wilder Penfield created a set of Homunculi which has become immortal.² His creatures sprawl over the sensory or motor area of the cortex, with limbs and organs proportionate to the corresponding cerebral zone.

Our curricular Homunculi may well be a new species. There exists, of course, the concept of the "seventy-kilogram man" who is supposed to be the central figure of the preclinical years.³ Our results rather suggest that this ideal figure should be replaced by a series of departmental monsters.



2. PHYSIOLOGICUS

Material and Methods

We concentrated our efforts on the Basic Medical Sciences of the two preclinical years: Anatomy, gross and microscopic (560 hours), Biological Chemistry (256 hours), Physiology (256 hours), Pharmacology (160 hours), Bacteriology (200 hours) and Pathology (357 hours). Though not necessarily a Science, Psychiatry was also included on the assumption that it is Basic and Medical (32, 12, 44 and 144 hours respectively in each of the 4 years). Several units of the second-year curriculum were not represented, simply because they were not photogenic: These were Medicine and Surgery, Case Taking and Physical Diagnosis (148 hours), and Laboratory Diagnosis (96 hours); and also 12 lectures on Normal Obstetrics, 12 on Neurology, and 9 on Pediatrics.

When the necessary schedules were collected we drew up a list of subject categories, to be translated into organs of the Homunculi. Then, for each course, every scheduled hour was assigned to one of the preestablished categories. No distinction was made between lecture and laboratory periods. On the basis of considerations both aesthetic and functional, the anatomy of the curriculum was simplified as follows:

HEAD, to represent the entire nervous system.

EYES, EARS, NOSE, MOUTH and TEETH, whenever applicable.

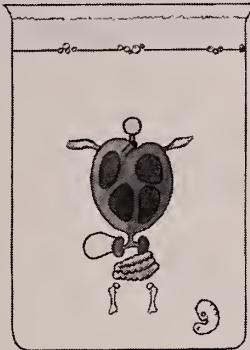
SKIN. There was never enough, however, to allow for a fig-leaf.

LIMBS. These were constructed, basically, from the time devoted to the locomotor system. Bone and muscle were represented separately. A quantitative apportionment between upper and lower limb was possible only for Anatomy.

HEART, to represent the circulatory and hematopoietic systems. In one case the latter was represented separately as a spleen (see further).

LUNGS, to indicate the respiratory system.

KIDNEYS, for the urinary system.



3. BIOCHEMICUS

GUTS, for the digestive system.

ADRENAL, for all the endocrine glands.

MALE GENITALIA, to symbolize the reproductive system (both male and female; presumptuous at first sight — actually just thoughtful).

EXTRA-HOMUNCULAR SPACE, to cover those topics which could not be identified, by any stretch of imagination, with any particular organ (e.g. introductory lectures, intermediary metabolism, etc.). This space was indicated as a separate block, except for three instances in which it assumed overwhelming proportions. In these cases (Biochemistry, Bacteriology, Pharmacology) it seemed more descriptive to represent the course by an appropriate container, covering an area corresponding to the total number of hours; then depict, inside, whatever was left of a Homunculus.

Psychiatry was a special case.

Results

Figure 1 represents *Anatomicus*, beyond doubt the most handsome, or human, of all the Homunculi. He has reasonable proportions, and looks fairly complete. The somewhat simian proportion of the upper limb, compared to the lower, probably stems from the fact that the upper limb is taught first, hence the lower can be dealt with more rapidly. The genitalia, of course, do not appear to be underemphasized, which would rather appear to contradict an old Yale story about Harvard. Which also reminds us that quite recently a young lady seriously asked us — as seriously as anything could be asked at a cocktail-party — whether this particular Homunculus represented the proportion of *thought* given to the various organs.

In fairness, we pointed out that Anatomicus is a concealed hermaphrodite: his prohibitive redundancy arises from the sum of two sexes.

In the base, the square labeled with a stethoscope represents the Saturday morning clinics in which Anatomy and Clinical Medicine are combined. The lower rectangle represents sundry generalities, including Embryology, represented, alas, to scale. In the evolution of twentieth-century Anatomy this is another area which has become submicroscopical, at least in proportions. The other square represents the time absorbed by coffee-breaks. This is a reasonable estimate, by one of us who recently absorbed the coffee.

Figure 2 represents *Physiologicus*. Strictly speaking, we could not make him stand on his own legs. There was no bone at all, or at least we were not able to find any. Presumably it had all been chewed in the Department of Biochemistry. Luckily we did find one hour spent on muscle: just enough to stretch out and use for dangling the little man by the head.

As far as we can tell this particular Homunculus is also dumb. Reproductive organs are not his strength, though he does not suffer from lack of circulation to support them. The proportions of his heart are truly unique.

Figure 3 shows Biological Chemistry as a beaker filled with a thin soup (water, electrolytes, proteinaceous impurities and other background material). The layer floating at the top represents time devoted to the lipides. Within this general decoction, there is enough organ-specific biochemistry to put together *Biochemicus*: complete with muscle (arms), bone (that's where it went), guts and kidneys: a small brain, but a heart of gold. Much of the time spent on the heart is devoted to hemoglobin. There is even an embryo, which would give the embryo of Anatomy justifiable cause for envy; it represents Biochemical Genetics and Biochemistry of the Fetus.

Figures 4 and 5 represent the Pathology course as it was taught just prior to the advent of the new integrated Curriculum: a Homunculus resting on a base, to symbolize Special Pathology resting on the General (the schematic cell stands for Cellular Pathology). *Pathologicus Simplex* in Figure 4 is strictly speaking a case of anencephalia. This representation was meant to bring out the fact that Neuropathology (52 hours) is taught by a separate team, which moves in lock, stock and barrel at the appropriate time, temporarily relinquishing an illustrious habitat several miles remote from the central Department. Parasitology is similarly omitted, because it is also the responsibility of a special group placed under the wing of the School of Public Health. The all-inclusive *Pathologicus Maximus* is shown in Figure 5, where the Anopheles stands for Parasitology, now a 36-hour course. In Figures 4 and 5 the upper limbs were omitted in order to underline a double handicap: first of all, neither the upper nor the lower limbs were treated as such; and then in that particular year, we were unable to find any mention of striated muscle. Eyes are present, which cannot

be said of every year; the edentulous grin is there thanks to the heroic efforts of the Dental School, which agrees to present the pathology of the oral cavity in one lecture and one laboratory. The teeth have no cavities, because time does not always permit discussion of caries. Pathology of the skin (the two squares covering the knees) is similarly condensed. The other organs are self-explanatory, except for an excessive masculinity which should not be taken at face value: The time was devoted, in the proportion of 6 to 1, to the female genital tract.

Figure 6 shows what happened to the Homunculus of Special Pathology, since the Pathology course was reorganized in 1957 as Pathologic Physiology. Because of a greater tendency under the integrated approach to consider the patient as a whole, all four limbs are indicated. Emphasis on function enlarged the lungs, kidneys, and endocrines, with great shrinkage of the reproductive system and disappearance of bones (transferred elsewhere). *Patho-physiologicus* had to be given a new organ, the spleen, to represent a great hypertrophy of the hematopoietic system. This occurred because of the incorporation of the entire course of Laboratory Diagnosis, which had previously been under the aegis of the Department of Medicine. Parasitology gained a couple of hours for chemotherapy (the bottle of DDT). There remained no time for the eyes, a deficiency which was corrected in subsequent years.

4. PATHOLOGICUS SIMPLEX

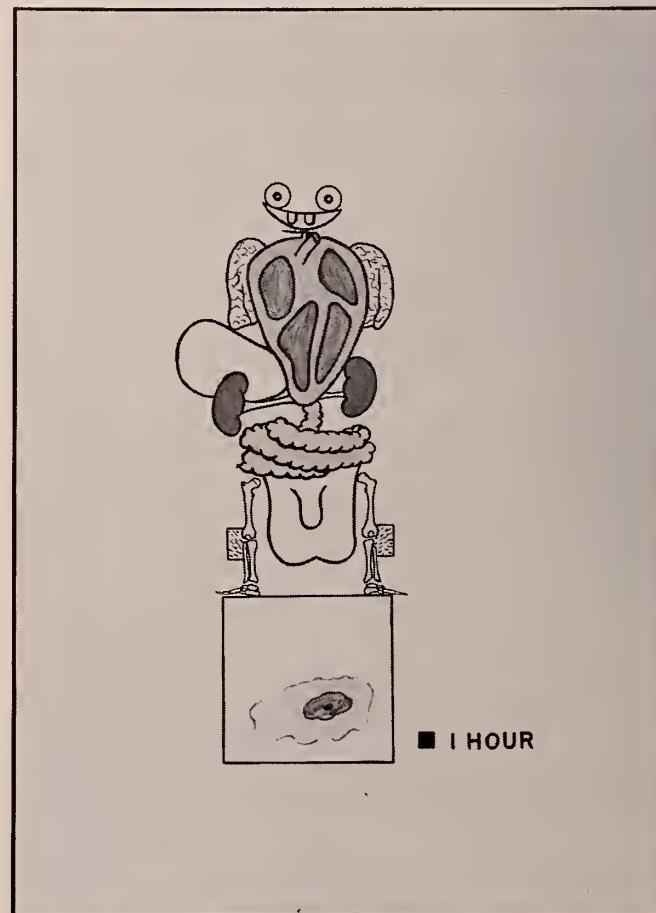


Figure 7 is *Bacterio-immunologicus*; the Wassermann tube on the left represents Immunology, and a Petri dish on the right Bacteriology. On the background of blood-agar, there stand out a gram-positive diplococcus and a large virus: this is time devoted to bacteria and viruses as such. The hours spent on host-parasite relations or on specific diseases are assembled in the remnants of a Homunculus. The fungus (penicillin) stands for chemotherapy.

Figure 8, *Pharmacologicus*, is self-explanatory; the precipitate containing various kinds of nondescript dead bugs, at the bottom of the container, stands for Chemotherapy.

Then came Psychiatry. Undoubtedly this course had to be represented. But how? A number of major organs are greatly slighted in the Psychiatry curriculum — e.g. bones, kidneys, pancreas, etc. — which is to say, in other words, that psychiatrists treat the patient as a whole. As a whole? We shudder at the thought of a possible association, but it occurred to us here that one of the lecturers had once declared *ex cathedra* that man should be considered, basically, as the sum of two orifices. Somehow this seemed an underestimate, but we did not feel competent to alter the verdict. So we tried several prototypes of *Psychiatricus*, all based on interwoven circles; they reminded us of the Olympiads, but they didn't quite fill the bill. The version finally accepted is presented in

5. PATHOLOGICUS MAXIMUS

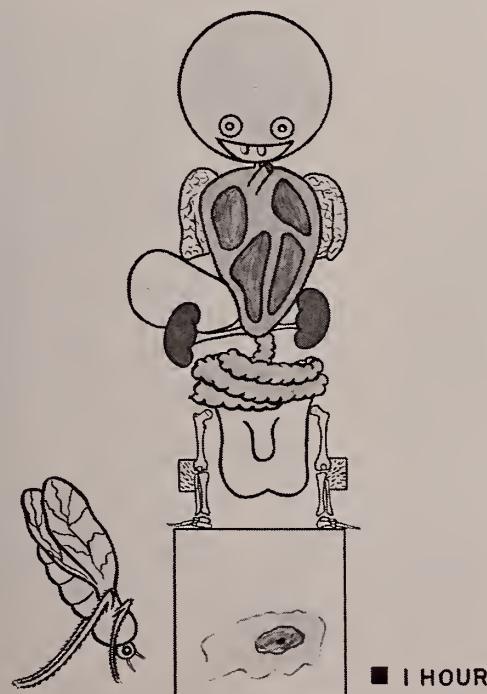


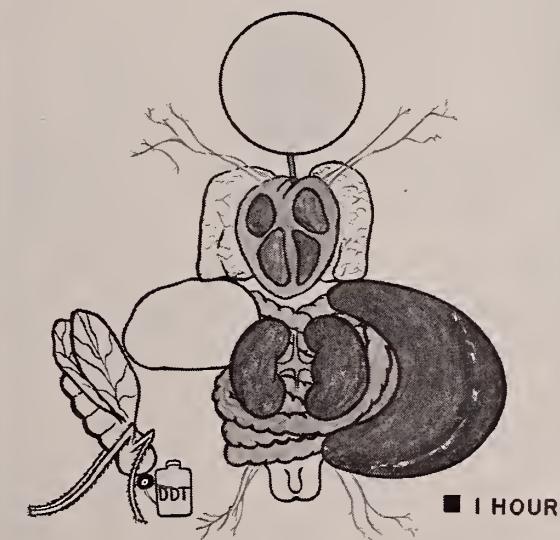
Figure 9. Since Psychiatry is the only course to cover the entire span of four years, an exception was made, and the whole four-year course was quantitatively represented. The openings of the intestine segment cover the first and second year; the segment itself stands for the third year, and the couch for the fourth. Quite a large course, after all, particularly when it is considered that the Announcement of Courses of the Harvard Medical School for the year 1943 listed a total of 58 hours for Medical Psychology and Psychiatry, as compared to a present total of 232.

Comment

Born as a compromise between logic and nonsense, our Homunculi will have to be taken with a grain of salt. The following remarks may contain any or all of these ingredients.

A large heart seems to run through the family. Obviously we know a lot about blood and circulation; morphology as well as function, biochemistry, diseases and pharmacological approaches. On the other hand, if we take a look at the nervous system (the head) it seems that we know a lot about its structure (Figure 1), somewhat less about its function and about means to affect it (Figures 2 and 8), but far less about its chemistry (Figure 3). More recently the time devoted to neurochemistry has been increased, but *Biochemicus* would still not appear as an egghead.

6. PATHO-PHYSIOLOGICUS





■ 1 HOUR



■ 1 HOUR

7. BACTERIO-IMMUNOLOGICUS

Anatomicus is not too far in looks from a true-life Homunculus Sapiens; he is beyond doubt the most complete member of the family. This merely represents one of the most important functions (in our opinion) of the Anatomy course in the present-day medical curriculum. Despite the current trend to frown upon "morphology," Anatomy is still there to present the *entire* human body. Pathologists may neglect striated muscle, physiologists may forget all about bone; but in Anatomy the entire machinery, however obsolete, is laid open.

The difference between the Homunculi of Anatomy and Physiology is so radical that we could not help some speculation. Perhaps it is fair to say that in Anatomy the major aim is *description*, hence the organs are represented, essentially, in proportion to the time it takes to describe them. And all organs are about equally describable. In Physiology *measurement* rather than description is the major concern; and of all systems, undoubtedly the vascular system is the measurer's paradise. Caliber, pulse rate and amplitude, hydrostatic pressure, flow, temperature, elasticity, permeability, osmotic forces, all this being variable along the vascular tree — it is no wonder that this Homunculus should have developed a cardiac hypertrophy. Striated muscle becomes dull in comparison with the circulatory system, and bone is little better than a stone. (Biochemists have become, by tradition, the physiologist's geologists.)

8. PHARMACOLOGICUS

Pathologicus (Figures 4 and 5) is somewhat dismembered by the existence of three separate teaching compartments, a necessary evil in our present physical setup. Since he does not have any musculature, we will assume that the students picked up their muscular pathology somewhere else along the way. The lack of upper limbs was also meant to emphasize another point. There is no time, in the present rush, for such things as pathology of the knee, of the elbow, shoulder or hand. This is the kind of useful, synthetic repetition which has become an old-time luxury, and we regret it.

Patho-physiologicus (Figure 6) is particularly awkward but not fairly represented, because his major characteristic, the integrated approach to each system, could not be indicated. The time allotted for Pathologic Physiology is essentially the time previously scheduled for Special Pathology, plus the course in Laboratory Diagnosis.

Figure 7 shows beyond doubt that in modern bacteriology the bug itself, with its own chemistry and physiology, has moved to the center of the picture. This is not surprising, in view of the contributions which the bacterial cell has made as a biochemical model for all cells. The more strictly medical aspects of bacterial disease, e.g. host-parasite relations, take up a smaller portion of the student's time. Insofar as given pathogens may be identified with organ-systems, *Bacterio-immunologicus* appears to be built very roughly in proportion to the ease

with which his parts harbor pathogens; the nervous system not so frequently, the lungs more easily, the intestine *par excellence*, the genital organs not infrequently.

Pharmacologicus is unique in one respect: he has no lungs. But let us not hasten to blame this anomaly on the curriculum; a moment's consideration will show that the fault is of the lungs themselves. The lungs are not real organs. Lungs are made, essentially, of borrowed tissues put together in a special way, but the cells themselves, at our present state of knowledge, appear to have little specialized work to do. Part-time dust-removal is not a very distinctive job. There is no parenchyma to speak of, just gas pipes, stroma and air, a meager foothold for drugs. Indeed, the main value of the lungs in present-day pharmacology seems to be as a way in or out. This lack of specificity may be quite fundamental since the body itself doesn't seem to have been capable of producing a "pneumo-tropic" hormone. In Selye's *Endocrinology*,⁴ a 914-page textbook, the references to the *entire* respiratory system add up to some 2 pages of rather anodine material. In the subject-index of Turner's *General Endocrinology*⁵ the entry "lung" doesn't even exist.

Of course, there are drugs which do act on the lungs; but (cigarettes excepted) they could scarcely be considered lung-specific. In the case of spasmolytics, for example, the target is smooth muscle rather than the lung *per se*. In a sense (and we are happy that our Pharma-

cology exam lies in the past), the lung doesn't compare as a target for drugs with the kidney, but rather with the bladder, another organ made of borrowed tissues.

Psychiatricus turned out rather earthy. Here the artist may have taken the upper hand.

Purists may object to the notion of curricular Homunculi. Time spent does not necessarily mean emphasis, nor does it necessarily represent the bulk of knowledge available. Of this we are perfectly aware.

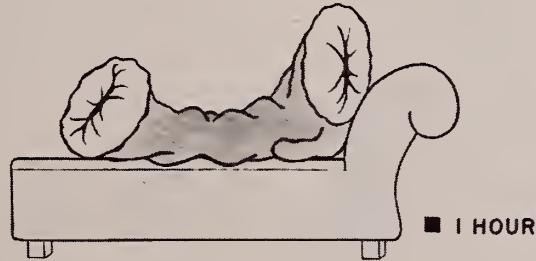
At any rate, let one thing be clear: none of the characters here represented could possibly imply any criticism of the present curriculum at Harvard Medical School.

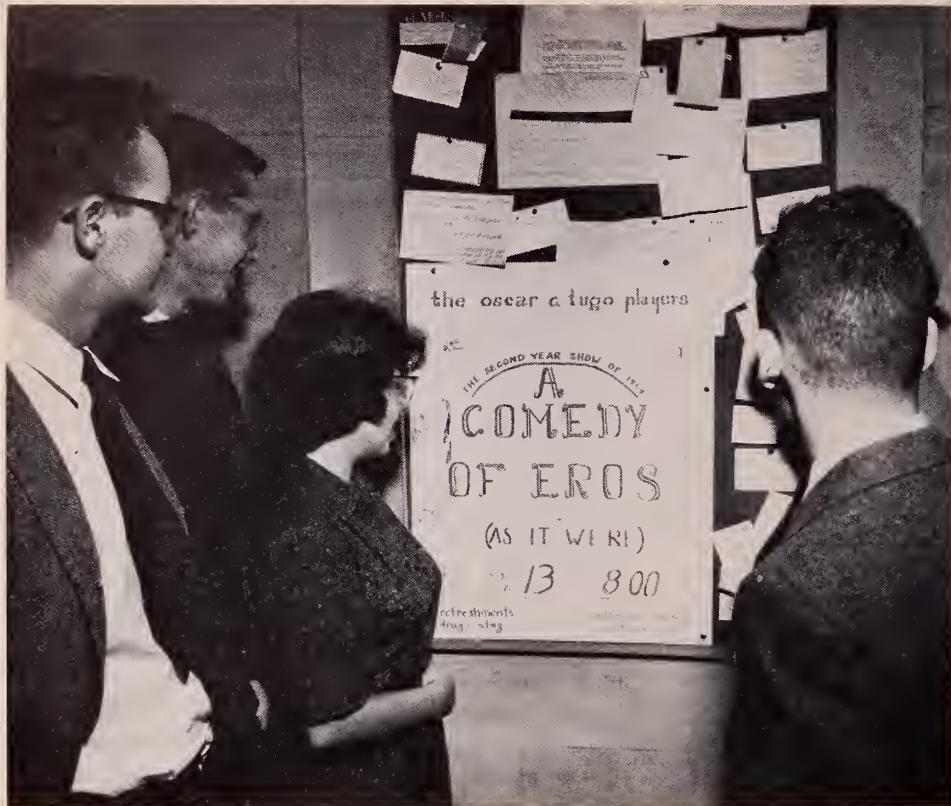
Monsters as a rule belong to the past, and therefore are relatively harmless. Our Homunculi are no exception: they were made from obsolete schedules, three years old.

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9. PSYCHIATRICUS





1. One day there appeared a small, taciturn notice amidst the maze of small, taciturn notices on the Vanderbilt Hall bulletin board. At first nobody paid any attention. The passage of time produced no change in the response and, finally, actors were placed nearby with instructions to chuckle heartily each time a passer-by passed by. Here we see several actors chuckling heartily in anticipation of a passer-by, who turned out to be the photographer.

CAST (in order of appearance)

Two Menstruals

King Fernandez-Moron . . . King of Spain
 Ramon y Cajal . . . The Spanish Fly
 Laverne de No . . . gorgeous gypsy girl
 Don Quaxorte . . . Royal Head Shriner
 Lief Erecion . . . Nordic Conquistador
 Admiral-Vice Ladmonette . . . Fearless Matador
 Melwin . . . Starry-eyed Astrologer
 José . . . a famed banking institution
 Three girls from Northampton . . . entertainers at José's Café

The Moor and Poris Moggotsack

Gov. Nobawl }
 Lady Hotkiss } Newlyweds

Schneider . . . famed chef of the Greasy José Café

Schweppes }
 A.K. Anyone } two lovers

Mates . . . a waiter

Nudnik . . . a beatnik

Guardian Edwardian . . . Slavedriver

Polandius . . . Minister, good but wise

Funkenpennies . . . a scintillating, snappy man

King George of the House of Berry . . . King of England

Opheelme . . . daughter of the King

Donald Sir Tickler . . . Court Physician

Pipenhumper . . . a goatherd

Town Krayer

Pharmacologische Mercenarische

A. Clifford Barker . . . Head Keeper of the Kennels

Lord Eric Spinnedayarn . . . jovial teller of stories

Collagen of Cardinals: A. Poap and Archbishop Angervine

Arch Daddy of Rock . . . a swinging teleologist

SECOND YEAR SHOW

The comment most often heard among the Faculty these days is: "What can I do to insure myself a place in Second Year Show?"

Photographs by
 Albert R. Frederick, Jr., '61



2. Here we see Ramon and Laverne dancing the famed Spanish Ritual Dance (Habenula) as the Court Menstrual looks on. The play involves a long-standing dispute between King Fernandez-Moron of Spain and King George of England's House of Berry. The opening act is set in Spain, a gay, wild, exotic, tempestuous nation. Moron and his brother, Ramon y Cajal, are fighting over a wild, exotic, tempestuous, 70-kilo gypsy girl, Laverne de No, who loves Ramon, who loves Ramon.



3. "I'm a helova masculine guy," screams famed explorer Lief Erecion as he exhibits his soldiers to the King, Abel and Bagel, a friendly Macaque and a short-tailed two-thumbed furry-headed booby. In the meantime, the king has sent Ramon, the "Spanish Fly — The Master Spy," to spy upon the British Court, because this eliminates him as a rival for the hand of Laverne.

"Before I sail across the seas, I must prepare financially," sings Ramon, "my pocket-mending, money-lending friend I'll see — I'm off to Greasy José's Café."





4. At José's, an enormous bill of fare is offered, although very few are able to partake of the pleasures offered. Part of the pleasures threaten to quit and return to Northampton if their wages are not raised. Here, José softly cajoles the girls.

5. "Happens to be I love you," sings Schweppes to A.K. Anyone, in José's Café.



6. In the interim, José has seized the opportunity to clear the table of its contents and Lady Hotkiss of her purse. In the center, sit the Governor of Hormon, the Hon. Nobawl, and Lady Hotkiss, his new bride. The famed Chef of Greasy José's Café, the winsome lass known as Schneider, is arguing with the Gov. who doesn't care for the *menu du jour*. "Lower your voice, you have no choice," she cries.



7. On his arrival in England, Ramon plans to slip a gram of epinephrin into each dracule of English wine ("England then will go to pot, precisely because the King cannot"). King George's nymph-like daughter, Opheelme, however, has other things on her mind. Here she sings, "On my Abdominal Agenda" to Ramon, who has his mind on something, too.

8. Ministers from each of the three provinces of the integrated nation are called to Court for advise. "Mental virility," exclaim, left to right, Wolfspeter, Archbishop Angervine, A. Poap, Guardian Edwardian, Col. Barker and Funkenpennies. Unarrived as yet are the Pharmacologische Mercenarische who sing the "Atropine Drinking Song" from "The Student Minced."

9. Erich Spinnedayarn brings news of Opheelme's suicide after her advance is rejected by Ramon ("Get thee to a Deanery!"). On the left Polandius, the Minister "dull but wise, who doth good King George advise," anticipates the work of grief.

An obscure goatherd, Pipenhumper finally saves the day by slaying Ramon with a silver syringe inserted into the sphenoid, and the play ends happily with the King cured and the Court singing the chorale written long ago by Oliver Wendell Holmes, "Goddamn the Sphenoid Bone."



SICKNESS BENEFITS

Howard N. Simpson, '35

"What the hell's so bad about four or five days in bed?"



MY Uncle Ben was down in Boston visiting us last week. Uncle Ben practices medicine up in northern New England. It's a part of the country I once saw described in a magazine article as "the pie-for-breakfast belt," but Uncle Ben says the only pie he ever ate for breakfast was meat pie, and that was because they ran out of steak and pork chops both, the same day. Uncle Ben says he specializes in "the skin and its contents," although I hasten to add in his defense he doesn't usually resort to such corny clichés.

One evening while he was here we had some neighbors in and somehow the subject got around to sickness *per se* so to speak and somebody said, "Well, I see they expect to have a vaccine to prevent colds pretty soon." That was tossed around a bit but I noticed Uncle Ben didn't say anything. Someone else remarked, "Well, now there's a flu vaccine that's supposed to be good for all kinds, they say." Various people in the room nodded solemnly, although one said he hadn't heard much about it lately. "I see you can operate right on the heart, lay it open like you'd fillet a flounder," offered another one. "Yes," commented still another, "and if you get it soon, cancer is curable I understand from the television." "That is, unless you smoke while you read the *Reader's Digest*," suggested someone over in the corner.

By now it began to dawn on me that there was a definite campaign afoot to smoke out Uncle Ben. When he gets to talking, down here where he can have a few drinks and not feel he needs to leave the phone off the hook, he may have some pungent observations. However, he was polite, murmured a few pleasantries, enjoyed his bourbon, and ignored anything controversial while a lot of babbling about miracle drugs, anticoagulants and tranquilizers went on. I had a feeling he might speak up when he heard what he took to be his cue.

It came rather unexpectedly. One sophisticated matron whose cigarettes were more thoroughly filtered than



“...some women can’t go to sleep at night without pawing themselves over for lumps.”

most finally asked, “Don’t you suppose the day will come when we won’t have any sickness at all?”

Many of us don’t need a barometer to tell a storm is brewing. We feel it coming. I instinctively turned to look at Uncle Ben and as I did so there was a slight gurgle and his florid face became more flushed and his piercing eye more penetrating. I knew we were in for a torrent, but he started in a very calm tone.

“Time was,” said Uncle Ben, “when illness was looked on with a certain degree of equanimity. It was something to be expected, something to be endured, much the way inclement weather still is. You fed a cold and starved a fever; night air was unhealthy; a green winter meant a full cemetery; but whatever the proverb, sickness was to be taken in stride, whether it was the ailments of the elderly, the miseries of the middle-

aged, or the epidemics that raged and subsided amongst the young, immunizing as they went. In any case, the insults to which the flesh was heir, whether infectious, tumorous, nervous or vascular, were to be taken as a matter of course. Sometimes the Lord was expected to share the blame, and sometimes it all merely reflected the sinfulness of the victims, but regardless of the cause, or of the outcome, there was no reason to create a great dither.”

At this point something seemed to be bothering Uncle Ben, and I thought maybe he needed more ice so I got him some. It turned out it wasn’t ice he wanted so when I got him fixed up, he went on.

“Now it is all very different,” continued Uncle Ben. “Preventive measures against illness have assumed a prodigious importance in modern life. Vitamins to prevent colds, antibiotics

to prevent whatever antibiotics prevent, steroids to prevent rheumatism, hormones to prevent hot flashes, health foods to prevent poverty among the manufacturers thereof, low-cholesterol diets to prevent high cholesterol, tranquilizers to prevent qualms, benzedrine to prevent that let-down feeling, April to prevent cancer, pills to make you thin, pills to make you smell better, all this propaganda has served to convince the public that sickness is something that simply does not occur to the people who read the ads or listen to the commercials, or if it does, they might as well trade in their family doctor for an Indian medicine man.”

At this point, one somber chap tried to get in a protesting word but he was brushed off like a good tipper in a barber shop.

“This attitude,” went on Uncle Ben, “may have wide implications. Take the business a year or two ago, for

example. Asiatic Flu is about to sweep over the world and engulf us all. The Surgeon General says so, the newspapers say so, the drug houses with Madison Avenue accounts say so, and everyone panics. Well not everyone. One old doctor down in Rutland told me that a trembling soul came bleating to him for succor from the dread plague and he said to her, 'What the hell's so bad about four or five days in bed?', but he said all that happened was that she went down the street to a colleague and was saved."

At this point, my wife Ella came to the door looking slightly disheveled and a bit frantic. I recognized the

picture. Ella collects recipes from the daily paper, from all the magazines, from books we pick up on summer vacations, and from pen pals in Tibet and Montenegro. Obviously an exotic creation was ready to be served, but I scowled that this was no time to interrupt. She gave a weary shrug and went back for the celery and olives.

"Nowadays," Uncle Ben proceeded, "sickness, instead of being part of everyday life, like withholding taxes or minced toes from power lawn mowers, is something to raise funds for, insure against, legislate about, or rush to Boston. One of my patients broke her hip the other day. She was hurrying

to answer the doorbell. Do you know who was at the door? It was a Nigerian soliciting for the trypanosomiasis campaign. Take the cancer ballyhoo for instance. That has reached such a shrill pitch that some women can't go to sleep at night without pawing themselves over for lumps. They go to movies to find out how to do it, and if they find a wen or a pimple, nobody gets any rest until the pathologist has handed down an opinion. Sometimes I wonder just how far this sort of thing may go. It may seem unlikely that men will be persuaded to examine their own prostates every evening, but if the human race continues to lose its sense of humor at the present rate, anything can happen."

Ella appeared again at the door, and from her look of determination I realized that the initial production had been scrapped and a new delicacy was in the oven. She left the bottle within easy reach and when Uncle Ben had helped himself he went on.

"The implication inherent in this is that all sickness is all bad, and must be rooted out of modern life at any cost. Congress must appropriate money for crash programs, because who knows what loathsome situation is imminent. Wormholes might appear in Presidential timber, or a crooner might get tonsillitis and sing on key. Research must be speeded up, as though all that were needed to increase knowledge were to spend money. This obsession about health is becoming pathological. Some persons pursue health so frantically they never let it catch up with them."

Some of the guests began to look as if they had a bear by the tail, but Uncle Ben went imperturbably on. "With all this emphasis on the evils of sickness, has it occurred to you that perhaps it does some good? One of you mentioned a short time ago that it will be a wonderful advance when there are no more colds. Actually, as I see it, it will be a tragic day when that much-sought preventive is developed. I know plenty of kids whose mother leaves a bowl of cereal and some milk on the table and runs off to

"... A wen or a pimple . . . no rest until the pathologist has handed down an opinion."





“... and his doctor mumbles something about a clot.”

the factory or office at the same time Father is leaving. Those youngsters would never know their mother loved them if she didn't have to stay home with them once in a while and take care of them when they had colds. Family life in this country is a dead duck. Unless there is sickness in the household the only time a family gets together nowadays is when they huddle together in the gloom with their jaws sagging watching television.

“Or take that worst of all patients, the middle-aged, erstwhile athletic male who has never had a sick day in his life. To him, all this sickness business is for weaklings. He is one of those thoroughly despicable individuals who cannot understand why their wives get migraine or molimina, or why their children get the sniffles on the day they are supposed to be in the Sunday School play. Suddenly he finds himself in bed because last night his chest hurt and his doctor mumbles something about a clot part way down his posterior coronary artery. Old Stuffy has been cut off at the knees, and what a fall was there my countrymen! First, he is indignant. Utter tommyrot, a clot in *his* coronary.

Doctor is a fool. Nothing but an old pill-bags. And as for that silly gadget with the wires! Besides, he's too busy. So after the doctor has gone, Old Stuffy decides he'll show 'em so he gets up and goes to the john and gets dizzy and faint and hollers to get that doctor back here quick. By now he has thought it over and decided maybe he had better go to the hospital for a few days after all, and by the way, Doc, spare no expense.”

The room was so quiet you could hear a cube clink. Uncle Ben went on. “Sometimes a serious illness is the making of a man. Plenty of people never take the time to enjoy their own families or homes until they are laid up. Too busy flying back from New Orleans in time to get to the golf tournament.

“Now when the woman of the house gets sick, the major benefits that accrue are in the shape of appreciation of what goes on at home, unnoticed, every day. With her illness, the keystone of the household falls. Nobody else knows what food to buy, or what clothes will be needed when, or how to make the stove work, or how to handle the cleaning woman, or

what to do about the rummage sale at the PTA, or how to act like a den mother. So the rest of the family gets a hint of what constitutes her routine while they are at work, or at school, or at the Brownies.

“There is one other aspect to this that might be mentioned. Sometimes illness gives an individual an opportunity to cogitate a problem that has been a great worry, but which he, or she, has never really had sufficient time to think through. I am reminded of a farmer's wife who had been married for twenty years and who was having marital difficulties. Things had been simmering for some time, and it looked as if they might break up, but nothing definite, and interested parties on both sides were trying to make repairs. Then one day she came down with hepatitis and was in the hospital for some weeks. While she was there she had a chance to think about the years they had been married, all those twenty years, and the things they had been through together, the troubles they had had, the kids, the bills, the fights, the misunderstandings, and finally, as she recovered, she began to comprehend and appreciate what an absolute stinker she had been stuck with all her life, so when she got well she divorced him.

“I might go on,” said Uncle Ben, “but I think you see what I am driving at. By suggesting that there are benefits to be derived from sickness, I do not mean the monetary gains acquired by the hucksters of health such as doctors, nurses, druggists or crutch-makers, but rather the benefits, often intangible and more often unrecognized, to be derived by the sick person because of his illness. The rewards may be considerable, but they may be found in the unexpected realms of the development of character, the appreciation of human values, or the enrichment of the soul.”

My wife, now poised and confident, suddenly appeared to summon us to the dining room where her latest endeavor steamed invitingly in a casserole. Her triumph was short-lived. “Ella,” said Uncle Ben a bit dubiously, “do you have any raised doughnuts?”

DIAGNOSIS DEFERRED

“Let Each New Temple”

When Dr. Oliver Wendell Holmes wrote “The Chambered Nautilus,” nearly twenty years before becoming the first president of the second Boston Medical Library, he probably had little idea that the poetic admonition to build more stately mansions, like the seafaring shellfish of which he wrote, would be so soon and so often heeded by the institution that he was to head.

The first Boston Medical Library had had a corporate existence of twenty-one years, after which it had gone underground for nearly thirty. Established in 1805, it made up part of a group of institutions of great prestige that barely preceded or closely followed the ending of the Revolution. These were such forward-looking enterprises as the American Academy of Arts and Sciences, founded in Boston in 1780; the Massachusetts Medical Society, organized in 1781; the Harvard Medical Faculty, appointed in 1783 and so-named in 1811; the *New England Journal of Medicine and Surgery*, established in 1812, and the Massachusetts General Hospital, opened in 1821 after a considerable period of gestation. The Library itself, according to

its historian and late librarian, Dr. John W. Farlow,¹ came into existence under an act of the Great and General Court of Massachusetts passed in 1798, permitting any seven or more persons in any town or district to form into a society for the purpose of holding and using a library. These were “Social Libraries;” the first was the Social Law Library, founded in 1804, and the second was that of medicine, domiciled at Dr. John Fleet’s, in Milk Street.

The Library’s first low-vaulted past was of short duration; in 1807 it “left its past year’s dwelling for the new,” finding greater shelf room in the Apothecary Shop of Amos Smith, where it remained until 1819 when it joined with the library of the Massachusetts Medical College, in Mason St. This was the building, so-named because of the generosity of the legislature in contributing to its construction, that housed Harvard’s Medical Faculty from 1816 to 1847. Thus, the first Boston Medical Library was united with that of the Harvard Medical School — a union that lasted, however, for only seven years, for in 1826 it broke away and found sanctuary in the Boston Athenaeum. This

limpid pool of learning had already absorbed a number of lesser organizations and was rapidly acquiring a corner in culture. Thirty-one of Boston’s seventy-one physicians, according to Farlow, were Proprietors of the Medical Library, and thirty of these became also proprietors of the Athenaeum at \$150 a throw.

The 2000 volumes thus shelved did not constitute the only bibliothecal aggregation of distinction in Greater Boston, however. The Boylston Medical Library in Harvard College at Cambridge had already been established in 1802, and both the Massachusetts Medical College and the Massachusetts Medical Society had libraries of their own. These had rapidly become mere museum collections, unrefreshed from any springs of knowledge — “a few old books, never added to, their use not encouraged, and no particular interest shown in them on the part of the authorities.”

In 1872, in fact, the books of the Massachusetts Medical Society, other than its own publications, which were sold to members at 20 cents a volume, were given to the City of Boston “at a time when all hope that the medical

The present home of the Boston Medical Library, soon to join forces with Harvard: "As late as 1881 the present location of the Library was an area of decrepit shanties and, as Wordsworth once described the England of his time, 'a fen of stagnant waters.' The Fenway had improved sufficiently by 1899, however, so that the trustees were encouraged to purchase land next to the new Historical Society, and awarded a contract for the construction of the present building at a cost not to exceed \$98,000.

"The Library, having moved into this product of its reckless extravagance, opened its doors on January 12, 1901 — 'Stretched in his last-found home, and knew the old no more.'"

David Lawlor



profession would have a library of its own was entirely relinquished."

Only two years later a fresh breeze began to stir with the newly awakened zeal of young Dr. James R. Chadwick in the project of developing a true reference library. As a result, the second and present Boston Medical Library was established in 1875 at 5 Hamilton Place. Oliver Wendell Holmes became the first president and Chadwick the first librarian, with Dr. E. H. Brigham in full-time charge as assistant librarian.

Eager especially for periodicals, Chadwick solicited and obtained the exchanges of the *Boston Medical and Surgical Journal*, establishing a custom that has continued to the present. The Library now receives, in fact, well over 200 periodicals with which the *New England Journal of Medicine* exchanges, as well as some 500 textbooks each year that have been sent to the *Journal* for review.

Only three swift cycles of seasons rolled, as material accumulated, before Hamilton Place was outgrown and an appeal was made for subscriptions to purchase the larger house at 19 Boylston Place, which from then on sheltered the Library until its present home was built.

Of note during this period is the enlistment in 1892 in the service of the Library of Mr. James F. Ballard, librarian extraordinary, then of tender years. From his original assignment as second assistant librarian he crept up to become assistant librarian in only twenty-six years, and eventually director of the Library.

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The Library, having moved into this product of its reckless extravagance, opened its doors on January 12, 1901 — "Stretched in his last-found home, and knew the old no more." Never prospering, not unlike most independent libraries, the Boston Medical Library has yet always clung to its purpose in greater or less degree, because of the great need for it. And despite its vicissitudes it stands today as presumably the third largest work-

ing medical library in the country, in point of total items, with in addition the largest collection of priceless medical incunabula in existence. This rare-book collection represents, it is true, the museum aspect of librarianship — or is it librariancy? — but an eagerness for progress may be not unkindly tempered by a reverence for that which constituted progress in its time.

In uniting again with the medical library of Harvard University, this time in the fulfillment of the truly great Countway Library, the library of Holmes and Chadwick and their successors will enter into the most secure phase of its "manifest destiny":

— Let each new temple, nobler
than the last,
Shut thee from Heaven with a
dome more vast,
Till thou at length art free,
Leaving thine outgrown shell by
life's unresting sea!

1. Farlow, J. W. *The History of the Boston Medical Library*. 240 pp. Privately Printed by The Plimpton Press, Norwood, Massachusetts. 1918.

Dr. Bremer, Hersey Professor of Anatomy, *Emeritus*, died in Boston on December 25, in his 86th year. Medical students during the forty years he taught embryology at Harvard Medical School will recall the clarity of his lectures and his "old-school" qualities of a gentleman born and bred. Many of his students, among them ourselves, may have regarded his subject as something to be sufficiently studied in order to pass the required examination at the end of the first half year of their medical education. How few of us realized the basic importance of this subject in the practice of medicine, let alone its vital significance for those who were to attempt to correct the congenital anomalies encountered in the practice of surgery of the newborn and young children.

Throughout his long career, Dr. Bremer believed that the teaching and understanding of embryology was

of very practical usefulness. We had many times heard him say regretfully somewhat as follows: "Why is it not possible to utilize more effectively for our undergraduates that museum of 'Embryology-gone-wrong' — the Children's Hospital?" For a time, indeed, before World War II, Dr. Bremer worked closely with Dr. William E. Ladd, '06, and his associates, in presenting clinics at the Children's Hospital. Here were shown and discussed the many living illustrations of the developmental anomalies of the human embryo.

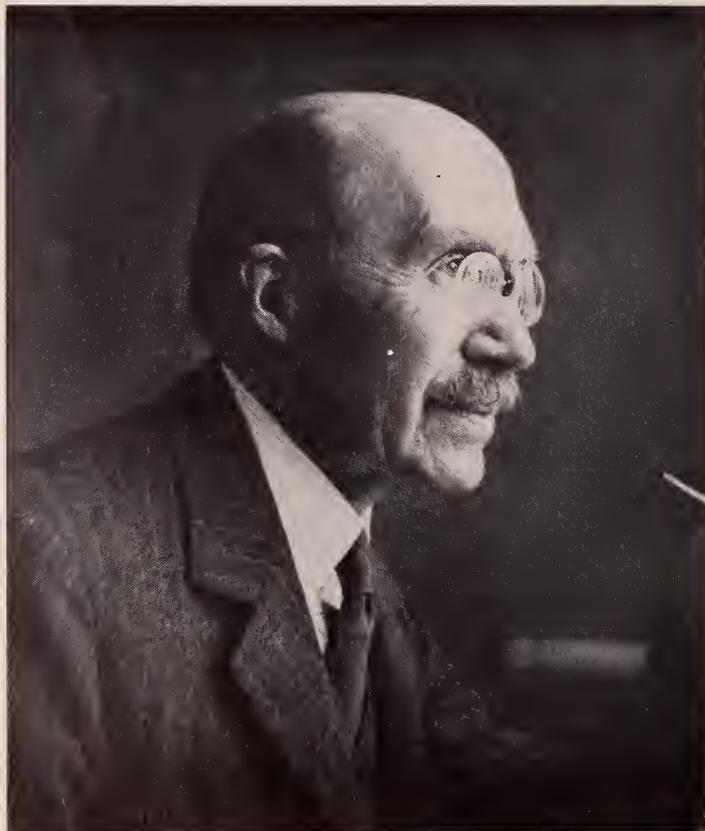
Dr. Bremer's volume, *Congenital Anomalies of the Viscera, Their Embryological Basis*, was published in 1957. This textbook, which as yet has not received the attention it deserves, should be read and studied by all pediatricians, and particularly by surgeons who are interested in the diagnosis and correction of these anomalies. Without a proper understand-

ing of embryology, treatment may be either incomplete or futile.

Enormous progress has been made in the past twenty-five years in the surgical treatment of these conditions, and much of this is the result of the painstaking and meticulous studies of Lewis Bremer. He was far-seeing, and this volume, happily published before his death, is a clear and concise summary of his observations over many years. It represents the studies of a man whose lifework was in the basic sciences, but who was one of the few who envisioned the importance of embryology in the practice of medicine.

A rare personality, combining scholarship, gentleness and patient work, was lost when Dr. Bremer died. One hopes that his life and work will provide stimulation for further advances in his field. We shall not see his like again.

THOMAS H. LANMAN, '16



John Lewis Bremer

1874 - 1959

Linn Fenimore Cooper

1899 — 1960



“Surely Almighty God will have a special place for him in Heaven after all the good he has done for so many poor people.”

MOTHER M. JEROME
Kanowit, Sarawak

Linn Cooper graduated from the Harvard Medical School in June, 1926. The descendant of a distinguished family, he had a strong background of both social and intellectual achievement. This motivated a life-long sympathy for the less fortunate.

As an undergraduate in the Medical School he was a gay and happy young man and a marked individualist. He was not willing to accept what was taught until he had sought the truth with his own mind. He had many interests in life in addition to medicine and enjoyed these to the full.

Following internship at the Massachusetts General Hospital, he spent three years at Johns Hopkins as resident in medicine. He then settled in Washington, D.C. and established a prosperous private practice. While most successful both socially, and professionally, this was not to be the answer to his life. A brief and unhappy marriage was included in these years.

Intensely interested in National affairs, he was bitterly opposed to the growing influence of Communism. Being both fearless and outspoken about his feelings, he aroused considerable wrath in the Administration of that period.

With the onset of war, Linn gave up his practice to join the Army. Following service in the United States and France, he was discharged with the rank of Lieutenant Colonel.

After the war, he did not return to practice, but joined the faculty of Georgetown University. A brilliant teacher and very interested in medical students, he spent much time and effort in their instruction. He particularly enjoyed having small groups at his home for evening discussions. Deeply interested in the activity of the human mind under the influence of hypnosis, he did considerable research and was co-author of a book on this subject.

In June of 1948, Linn went to Yale-in-China at Changsa. Teaching and clinical work kept him active and content until he was driven out by the Communists. He had grown deeply fond of the Chinese people and made many friends among them. It was a bitter blow when he had to leave.

After a course in tropical medicine in Liverpool, England, he settled in Jirapa, Ghana as physician to a Catholic mission. As the only physician in the remote hinterland, he did his best to treat those that came to him for

help. The four years in this area were among the happiest of his life.

Having completed a small hospital and having found two young men to take his place, he moved across the world to Sarawak where again he intended to found a small hospital. While working alone in the back country, he contracted encephalitis. Brought down the river by the natives, he was in coma on admission to the English hospital, and died in a few hours.

The consuming fire to help the underprivileged carried Linn to many distant places. Always restless in his search for the true life, he finally found his answer as a physician to primitive peoples. From China on, he devoted his life and resources to bringing good medicine where it was most needed. Luxury and comfort meant little to him and he lived a Spartan life. This work to him was the road to happiness.

He avoided fame and notoriety, and his work did not reach public acclaim. This is what he preferred. In the world of idealism, faith, and courage, Linn Cooper found his place among the great.

BENJAMIN TENNEY, JR., '25



Much is known about the medical scene in Western Europe, and much is now being written on Russian medicine. Eastern Europe, however, has received far less attention. Dr. Postic begins on the following pages a *Bulletin* series covering the major East European countries, excepting Russia. Each article in a coming issue will be written by a physician native to the country and familiar with the general medical scene, since the *Bulletin* feels that such an author will possess a deeper understanding and appreciation of his country than would a foreigner.

MEDICAL LIFE IN YUGOSLAVIA

Some Observations

Bosko Postic, M.D.

When the State of Yugoslavia emerged after the lengthy four years of war in 1944 the problem of public health demanded immediate attention by the Yugoslav health authorities.

The War had resulted in material destruction of many hospitals and other health institutions. Furthermore, a great many of the medically trained personnel had perished in the turmoil of the War. The disruption of medical education during the war left a dearth of new graduates. It is not my intention to review the details of the reconstructive process of the Yugoslav health program. Suffice it to say that enormous efforts were invested in this reconstruction and that the most vital health problems were solved in the early postwar period.

Dr. Postic has been in this country for two and one-half years. He is now a resident in Bacteriology under Dr. Edward H. Kass at the Mallory Institute of Pathology at Boston City Hospital and Assistant in Bacteriology and Immunology at H.M.S. He graduated from the University of Zagreb Medical School in December 1955. In July, 1957, he arrived in the U.S.A., spent a year as an intern at the Mt. Auburn Hospital (Cambridge) and a year as assistant resident in medicine at the Lemuel Shattuck Hospital, Boston.

These problems were great. During the War there was a significant epidemic of rickettsial typhus in Bosnia and Hercegovina. Sporadic cases of this disease were encountered even after the cessation of the War with more than casual frequency. At the same time malaria was a serious problem in Macedonia and parts of Dalmatia. By successive, diverse and well-planned actions the Yugoslav public health service has succeeded in reducing the foci and vectors of these infections.

Along with other social changes which took place after 1944 the organization of medical care evolved into a new pattern. A major portion of the population (approximately 60%) was incorporated into a national health insurance system which provided free medical care in all its categories. The insured population comprised various professional groups and included people with full-time jobs with collective or private enterprises. The self-employed people were not incorporated into the National Health Insurance System. This group was diverse again, comprising peasants, some craftsmen and urban self-employed professionals such as lawyers. Medical personnel (physicians, nurses, medical technicians etc.) were insured, since almost everybody from this group was holding a full-



The minarets and mosques in the city of Mostar in Herzegovina reflect the Moslem influence in the past. This part of Yugoslavia has a large Moslem minority today.

time job with the National Health Organization. However, even the uninsured population could be offered free medical care under the following medical contingencies:

- 1) all infectious diseases
- 2) all malignant diseases
- 3) obstetrical and infant care
- 4) mental diseases.

Having in mind that tuberculosis is still a major public-health problem in Yugoslavia, it can easily be conceived how extensive was the coverage offered by the National Health Insurance plan. Actually the incorporation of the listed conditions under the National Health Insurance System represented a realistic measure, since the disasters of the war had impoverished large sections of the population.

Private practice ceased in hospitals in 1944 and 1945 but continued in office practice. A considerable number of physicians continued to practice privately, most of whom held full-time positions with Public Health institutions at the same time. These physicians would usually work in their private offices in the afternoon and evening hours. Recently, in 1958 and 1959, this type of private practice has undergone revision. Private practice and the

National Health Service were separated in a more definitive way. This separation means that an M.D. can no longer work in the National Health Service and also retain his private practice. Private practice is not altogether abolished but the physician must commit himself for one or the other. Along with the described change, the coverage of the National Health Insurance Plan will be extended to the entire population of the country.

The fundamental institutions of the socialized system of Yugoslav medicine are the "Domovi Narodnog Zdravljja" (DNZ) best translated as Public Health Centers. These DNZ's are similar to American OPD's in one part of their function. At the same time, they are more complex in their organization, since they may provide a home-care setup and thus serve as epidemiologic centers as well. The present DNZ pattern in Yugoslavia owes much to the inventive spirit of Dr. Andrija Stampar. Dr. Stampar, who was the first director of the World Health Organization, received considerable support from the Rockefeller Foundation after World War I. Since then the DNZ system has been developed, propagated and grown extensive roots.

The DNZ's are staffed mostly, but not exclusively, by general practitioners and clinics covering some of the

specialties are usually attached to them. The DNZ's are very numerous in Yugoslavia and are spread all over the country. Any clinic may have substations situated in a geographically convenient way. Some are accommodated in new buildings, specially designed for this purpose. Even the remote areas and mountainous parts of the country have in most instances an adequate access to a DNZ. The roads and vehicles used for this purpose, however, present a great problem, one which is easily understandable to anyone who has seen Yugoslavian mountains. The DNZ's represent an effective medical facility for remote rural areas, since they are institutions with a rather simple material setup which offer adequate medical coverage.

In urban areas there is a tendency to attach the DNZ's to hospitals. A recent provision in this setup is aimed at rotation of DNZ and Hospital personnel. This system is evolving now in most places.

The Odyssey of a particular patient through the labyrinth of medical institutions might be described in the following way: a patient reports with a complaint to a DNZ. He is seen there, usually by a general practitioner. This physician may treat the condition on an ambulatory basis. Or the patient may be referred to a specialty clinic, and from there eventually to the hospital. After discharge from the hospital the patient is referred back to the DNZ physician with a letter. If the situation demands con-

tinued specialty care, the patient may go to a follow-up clinic. Thus, the responsibility for the care of a patient does not rest solely on the referring physician from the DNZ.

Most of the hospitals in Yugoslavia are of the large municipal or district-hospital type. Specialized hospitals include mostly tuberculosis sanatoria and hospitals for the mentally diseased. Practically all hospitals operate with a full-time medical staff comprising senior physicians, residents in particular specialties, and interns. Yugoslav hospitals, however, do not experience a change in staff of physicians-in-training on the first of July as do American hospitals each year. Residency appointments usually last longer than one year in a particular hospital and vacancies are filled as they arise rather than at a standard time. Internships last one year. Graduated interns usually enter general practice under the explained DNZ program. After a couple of years of work in a DNZ, a physician may renew his postgraduate training in one of the medical specialties.

As noted previously, specialized hospitals are mostly tuberculosis sanatoria. These are very numerous in Yugoslavia and are located mostly in the mountainous regions of Slovenia, Croatia, Serbia and Bosnia. The reason for the seclusion of these hospitals dates back to the pre-antibiotic and prechemotherapeutic era, when tuberculosis

Dubrovnik is often called the "Pearl of the Adriatic" for its combination of natural and historic beauty.



was treated with rest, food, nutrition and fresh air. Although the advent of new medications has changed the treatment of tuberculosis, the sanatoria, for the most part, have been maintained in their original locations, offering a relaxing atmosphere to the patients.

The morbidity and especially the mortality of tuberculosis has been in a steady decrease in recent years. Nation-wide tuberculin testing of children is becoming a tradition and the BCG vaccination has been in practice for several years. The number of tuberculin-positive reactors is significantly higher than in the U.S.A., as could be expected. This is why the tuberculin test serves more for epidemiological screening than as a diagnostic test for tuberculous infection.

Having glanced over the description of the organizational patterns in Yugoslav medicine, the reader will realize that the institution of this pattern involved considerable material investment. Having in mind the great economic difficulties in Yugoslavia in the immediate postwar period, one can easily visualize the extent of the problem of material funds necessary for the reorganization of the medical system. The acquisition of modern medical equipment is a bottomless pit for material investments in every country. Although a great deal was achieved in securing more modern laboratory supplies and medical apparatus, the material limitations still represent the greatest problem with which the National Health Service is confronted.

Medical education is an inseparable entity from the practice of medicine in a particular country. There are six medical schools in operation in Yugoslavia, a country of approximately 17 million. These are located in Belgrade, Zagreb, Ljubljana, Rijeka, Sarajevo and Skopje. Before World War II only the medical schools in Zagreb and Belgrade offered a full course for a medical degree.

A candidate for the medical school is supposed to have twelve years of formal education before he is admitted to the medical school. Training in Yugoslav medical schools lasts six to seven years. Although the total number of years is about the same, the Yugoslav student chooses medicine as his profession earlier. In the first three years basic science is taught. The last three years are aimed at training in clinical specialties. The study of medicine may extend into the seventh year, this being the year when the candidate for an M.D. degree takes a series of comprehensive oral examinations at the earliest available term.

The first teachers in Yugoslav medical schools in the 1920's and 1930's were mostly Yugoslavians trained in Western or Central European medical schools. At the present time most teachers of medicine are trained in Yugoslavia. A considerable number of them have spent time in foreign medical centers in West Germany, France, Great Britain, Austria or the United States.

It is our impression that the courses in Yugoslavian medical schools do not differ significantly from those offered by most European medical schools. The total number of students in particular classes of Yugoslav

medical schools has been inconstant from year to year and a tendency toward a decrease in a previously rather large number of students per class is noted. This measure will improve the teacher-per-student ratio. The lack of various material facilities is still a problem in the Yugoslavian medical schools, but a steady improvement in this sphere as well is noted.

Following graduation from the medical school the young M.D. is required to take a year of internship after which he is qualified to do general practice. All internships are therefore of a rotating type. There are facilities for specialization in practically all medical specialties and the length of these programs is similar to the American routine in the residency training setup. The system of postgraduate training in Yugoslavia is still evolving with the aim of an ultimately more organized pattern. It will be subject to successive changes and it is in this sphere where influences of more standardized postgraduate programs, such as the programs in practice in the U.S.A. and Great Britain, are being carefully studied.

Medical research is active in Yugoslavia. It is somewhat limited by economic factors, as expected. However, Yugoslavia represents a medically fascinating field. Many important observations are being made in field studies conducted by both local and foreign scientists. To cite two of such projects: In 1950 a study of Brill's disease was undertaken jointly by investigators from Harvard University and Yugoslavian scientists.* Recently a field trial of vaccination against typhoid fever was carried out by the World Health Organization.**

The medical literature in Yugoslavia is represented by several periodicals, such as:

Arhiv Srpskog Lekarskog Drustva (Beograd)
Ligečnicki Vjesnik (Zagreb)
Acta Medica Jugoslavica (Beograd)
Medicinski Pregled (Novi Sad)
Acta Chirurgica (Zagreb)
Neuropsihijatrija (Zagreb)
Radovi Medicinskog Fakulteta (Zagreb)
Tuberkuloza (Zagreb)
Medicinski Arhiv (Sarajevo)
Medicinski Glasnik (Beograd)

In conclusion, it may be said that the practice of medicine in Yugoslavia has recently undergone basic changes. These changes were consistent with a new and evolving society and specific circumstances under which Yugoslavia has assumed its present pattern. The present system of Yugoslavian medicine is still in evolution and is hindered somewhat by material limitation, but it is my impression that the achievements in public health activities in Yugoslavia justify an optimistic anticipation of the future.

**American Journal of Public Health*, Brill's Disease. IV: Study of 26 Cases in Yugoslavia. Vol. 41, No. 11, pp. 1359, 1369.

***American Journal of Public Health*, Cvjetanovic B. B. 1957 — Field trial of typhoid vaccine. Vol. 47, pp. 578-581.

